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NEW PROBLEMS IN SECONDARY EDUCATION²

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- 1. The great problems of secondary education today are, of course, problems of aim. The concrete, immediate aims which control the large majority of our administrative and pedagogic procedures in the American high school (and how very concrete and definite and exacting many of them are!) are of quite unknown value. We have not defined them in terms of human good: we seem unable to estimate the value of the results achieved in our efforts to realize them. We teach our prescribed algebra strenuously and with some very definite objectives, but we flounder pitifully when we try to prove that these objectives are really worth while. We have refined and standardized our immediate objectives in teaching physics and chemistry, but what we actually attain by it all in terms of human well-being remains concealed in the obscurity of vague phrase and inadequate generalization. We drive our boys and girls hard up the steeps of Latin. French. and German, but we are forced to fall back on mystical and uncertain faiths in the endeavor to justify our driving of particular youths up these particular steeps.
- 2. We have in reserve, of course, large, splendid aims which are alleged, finally, to guide the evolution and destinies of our
- ¹ An address given before the Academic Principals' Association, Syracuse, New York, December 28, 1015.

secondary schools. Do we not freely use such terms as "character formation," "mental discipline," "self-realization," "social efficiency," "culture," "citizenship," "leadership," "intellectual power," and a score of other unanalyzed general phrases, as expressive of our ultimate goals? And in these are there not summed up most of the purposes that really count in this life? It must be admitted that we do still live largely in a maze of faith (and fable) as regards education. The geography of mind has given us as vet extremely few maps that we can read or follow with confidence. We must still insist, even for our own comfort, that the Isles of the Blest lie just beyond the straits, and that our hard journeyings will surely bring us thither. So, in imitation of mariners in other seas where compass and chart and buov have long been in use, we hoist full sail and push for our magic shores. For, after all, our great, fine aims in secondary education, expressed in vague even though aspiring phrase, are in reality only faith aims; in practice they rarely actually guide us in choice of ways and means; and we seldom stop to measure the tangible results of our teaching against the shadowy and ever-varying interpretations of these aims as set forth in books and journal articles.

3. Doubtless, many of us, at times, wish we could translate our faiths into certainties. We should sincerely like to know in truth what the prolonged study of algebra contributes to the making of the trained mind which, as ordinarily conceived, is surely a thing of great worth. We should like to be able to demonstrate that our boys and girls actually become better citizens in part by virtue of the dry study of history which we have enforced. We wish we could prove that the hundreds of thousands-nay, millions now-of American men and women, who have some time and somewhere studied Latin, are better users of the vernacular because of that study. We should be gratified to obtain definite evidence that the science work of our high schools does in important measure result in appreciation of "scientific method" and a functioning mastery of scientific principles. We long for assurance that our high-school "cultural" education, now the universally accessible opportunity of the American adolescent boy and girl, does indeed refine manners, correct tastes, enrich minds, and ennoble spirits

in a degree at all commensurate with the efforts expended on the really fine bodies and brains coming under its influence.

4. The obligation rests, therefore, on all friends of secondary education (the need is at present greater here than in fields above or below the high-school period) to assist in defining valid aims through which to control the educational processes employed, and against which to measure results achieved. To discover, analyze, describe, and render effective these aims will prove a gigantic task. At all stages will be encountered the open and the secret opposition of the beneficiaries of vested educational interests, as well as that of the innately and honestly conservative. The traditionalist and the obscurantist will seek to block every progressive step. Unwise radicals will, through rash utterance and ill-conceived experiment, cover with confusion the sanely constructive. A halting sociology and a psychology too much devoted to the thin upper air of pure science will lend but poor assistance to an evolving system of scientific education, a system that must however in the last analysis find its chief supporting knowledge in these sciences.

Much and varied experimentation as well as study will be required for all this, and we educators do not yet take kindly to the prolonged effort, the close attention to detail, and the joyless suspension of judgment involved in experimentation of genuinely scientific character. In education we still live in an age of passionate judgments, cherished faiths, and intolerance of scientific probings. In the nature of things, it could not be otherwise. Our field of work is so complex, so dependent on subjective rather than objective standards, and so involved with our fundamental social and religious associations-the way of the emotional life-that no different development has heretofore been possible. Only within the last few years have some of us begun to catch glimpses of what a scientific system of education, comparable in some essential respects to a scientific system of medicine, of agriculture, or of transportation, might be. But we do catch visions now and then of a system of education yet to be developed whose objectives shall have been founded in an ample and tested knowledge of the needs of men and women fit for a twentieth-century civilization, supplemented by

equally ample and tested knowledge of the educability of the endlessly varying types of plastic humans with which the schools must deal. Even now, in the early morning half-light, we can begin to question some of our faiths, dissect our traditions, and give partial form to some of the problems which we know must await solution.

5. We can, as one phase of this process, take the established subjects of secondary education, and seek so to define the valid educational aims which should be realized through them that these aims, while definitely expressive of demonstrable human values on the one hand, will also serve to guide and test the effectiveness of the means and methods employed in the effort to realize them.

No one seriously contends, for example, that the study of modern languages should be discontinued in our public high schools. But no one can carefully examine our present procedures in teaching modern languages without reaching the conclusion that these procedures are at present so fundamentally aimless, unscientific, and traditional in character as to render this department of education wasteful and futile in the highest degree. In teaching foreign languages we have no clear and defensible conceptions of the purposes that should be realized, no satisfactory standards of attainment, no scientific evaluations of methods, and no criteria on the basis of which we can advise pupils to undertake, or to continue in, these subjects. Hence we actually permit or induce or require hundreds of thousands of American youths each year to give precious hours to these subjects with a resulting superficiality of attainment that would be ludicrous if it were not so pathetic. Our youths almost never learn to speak or to write a foreign language, and rarely to read it without mental translation of a wasteful and hampering character. We allow a young college graduate who has never been abroad to teach French and German, when, forsooth, he or, more probably, she could not hold ten minutes' intelligent converse with a non-English-speaking native of either France or Germany.

Similar statements might be made with reference to many other subjects taught in secondary schools. Certainly it is desirable and it should be possible for us in the near future to answer questions like the following with some degree of scientific exactness:

a) What are the really valid aims that should control in the teaching of, e.g., French, to youths who will presumably live and work and die in America-America, which is separated by an ocean from France, which has but few non-English-speaking French in its population, and which can draw freely on the culture products and scientific output of France in the form of translation and of sympathetic reinterpretation in English? We can certainly teach a few of our young people, carefully selected to this end, a great deal about French language and literature. We can render it possible for these few to live sufficiently long in France to attain a moderate mastery of spoken French, and to acquire some insight into the intimate aspects of French life. We can so reward the efforts of these few to obtain a genuine mastery over French language. French thought, and French institutional life, that we shall always be assured of their availability when we require messengers, governmental and private, to France. They will serve as the interpreters of France to us and of America to France.

But now we follow a different course. We assure ourselves of the competency of none. We teach a smattering of French grammar and French translation to many. Is this superficial contact at all worth while? We could, indeed, by methods very different from those we now employ, teach a reading knowledge of simple French, or of specific departments of so-called technical French, to many persons. But is this really worth while? Perhaps; but must we not ascertain to whom, probably, and for what purpose, probably? We have not done these things. We have allowed matters to drift, unsound preconceptions to develop, illusions to persist.

b) Why should algebra be prescribed as an almost inescapable requirement for admission to colleges? There is no evidence that this study serves as a necessary foundation for subsequent vocational or cultural studies except in a few easily anticipated cases. There is no evidence that it has any exceptional values as a mental gymnastic. The assumption that the methods or generalizations peculiar to it have far-reaching intellectual significance is quite unsupported by evidence. The plausible hypothesis that aspirants for admission to college who have failed in algebra are almost

certainly not qualified to survive in the higher altitudes of college studies is interesting, but it certainly needs further examination. partly to discover whether, even if valid, its requirements could not be satisfied by one month's purposefully directed study of algebra. Algebra, as now standardized, is unquestionably a valuable and necessary study-for a few people. It may be a very interesting intellectual recreation for some others. Let us define and delimit its possible useful functions in these directions. But let us go farther. Let us see who can safely be excused from

it: let us discover possibly more useful substitutes.

c) English literature is one of the few high-school subjects as to the importance of which there is little dispute. But we are far from being agreed as to what are the definite aims which should control in the selection of its materials and in devising methods of teaching it. The study of English literature is surely not to be regarded an end in itself. Then, to the realization of what ends is it a means? Can we not define these ends? And, having defined them, can we not derive therefrom standards for selection of materials and testing of methods? Many of us believe that current programs of secondary-school English, in spite of the immense improvement they show over programs in vogue even a decade ago. are nevertheless still too "classical," too historical, too much the reflection of the pedantic interests of academic minds which are more concerned with the anatomy and origins of literature than with its functioning value in the spiritual equipment of the individual and the social group. It is submitted that a large amount of most useful constructive educational work can be done in the endeavor to answer with some scientific precision questions like these: (1) Just what distinct different ends should be subserved by the study of literature by adolescent boys and girls? (2) Just what different methods of "study" of literature are practicable? (3) Just what are the tests of the "functioning" of the study of literature? (4) Just what service do we expect the study of classical literature, e.g., productions of Shakespeare or Milton, to render to youths of twentieth-century America? (5) What is the place, in this study, of purely contemporary literature, including last month's magazine? (6) To what extent and why have American

standards of literary appreciation changed as a result of the teaching of literature which we have carried on in school and college especially during the last twenty-five years? (7) Would it not be possible greatly to improve the results of the teaching of literature if we discontinued class meetings in this subject, using the teacher's time instead for individual consultation on home assignments, the latter being adapted to individual tastes and interests? (8) Finally, could we not greatly advance the teaching of English literature by completely divorcing it from all phases of the teaching of English expression?

d) Commercial education now occupies a large place in secondary education. At present this commercial education is a mongrel thing—it pretends to be vocational, but in reality it is only partly and confusedly so. For many pupils it actually functions as a sort of second-rate general education. In its essential characteristics it is typically American in its fostering of small illusions and misrepresentations, its permitting the shadow to be substituted for the substance, in the general slackness of its standards. Can we not ascertain to what extent and under what conditions it should be genuinely vocational, and to what extent really a type of general or cultural education?

6. While the study of the traditional subjects with a view to ascertaining the valid aims which should govern in their organization and presentation will prove necessary and desirable, no less importance should be attached to the formulation of new subjects to meet the educational needs of our youth for good general or liberal education. Already we are witnessing attempts in this direction. One group of educators is convinced that the science subjects now taught in high schools, whatever their results in other directions may be, do not give the general appreciation of the part played by scientific knowledge in modern life, nor a general capacity to interpret scientifically the phenomena of the pupil's environment that should be required in general education. The customary science subjects, especially physics and chemistry, have apparently become so formalized and rigid that their study seems to yield little in the way of abiding interests or insight. The demand is being made for a new course, to be called, perhaps, general science, the aims of which must differ greatly from those now in fact controlling high-school science teaching. Can we, first, devise and formulate definite aims for the new subject, or, rather, can we so define and state the pedagogic needs of our youth in this field as to interpret therefrom aims for a new science subject? And can we then, having formulated these aims, assemble the materials—exercises, readings, experiments, projects, study units—which, rightly organized, shall give the new study pedagogic substance? This is one of our problems.

Again, we must by this time be keenly aware that, in spite of assertions to the contrary, our high schools do not give training or instruction toward citizenship in accordance with sound principles of aim or definite principles of method. We say, or allow it to be said without protest, that our high schools find their chief justification for public support and public control in the fact that in them are to be trained not merely the voters, but the most influential voters, the leaders of the future. And yet we give very little conscious attention or systematic effort to any purposeful form of education to this end. The need of this education is clearly manifest. Here, again, a few enterprising spirits are endeavoring to assemble the materials for a concrete, vital study of community social life—community civics. A long period of patient investigation, study of local conditions, and constructive thinking will be required to bring this subject to full usefulness. In the meantime let us hope that, because it starts largely free from traditions and has involved some conscious apprehensions of the educational needs of the community and the youth, community civics, under that or any other name, will be more genuinely functioning study than the "civil government" which was, in some respects, its prototype.

7. The attempts now being made to organize new high-school subjects calculated to make definite contributions toward the richer liberal education of adolescent youth are still insecurely based on psychology and sociology. There are greatly needed, now, comprehensive and detailed studies of the real objectives of secondary education as these must be found in the socially and personally efficient adult whose type we try to aid in reproducing (efficient, be it remembered, in *living*, no less than in making a living—as

a utilizer of the world's best goods no less than as a producer of good service).

Right methods of study to ascertain these objectives would probably include the following:

- a) Analysis and classification of all the qualities—capacities, powers, attitudes, sentiments, faiths, knowledges, ideals, aspirations, skills, etc.—possessed by a series of selected individuals of from twenty-five to sixty years of age, and selected because typifying in their composite sense the standards to which we desire that our youth—the adults of the next generation—shall approximate.
- b) The classification of the qualities thus described, or phases of them, into three groups, as fully as our present inadequate knowledge will permit—namely, those due to heredity, those due to the nurturing effects of normal environment, and those due to purposeful education.
- c) Further analysis of hereditary qualities and qualities due to nurture of environment, with a view to ascertaining how far in any given case systematic education has, or should have, modified them.
- d) The assembling of the more or less general or common qualities, as to which the educational methods of the school may be made to apply, as a basis for school programs.

The method here suggested should so reveal educational needs and possibilities as to give us definite objectives for new studies. A few examples may serve as illustrations.

a) A study of successful men (successful in the best sense of the word) will show that they have acquired somehow and somewhere a considerable body of knowledge (or appreciations, the by-products of concrete experience) of the elemental facts of psychology. They know the place of habits in life and the significant facts of habit formation and correction. They are conscious of the possibilities of systematic intellectual approaches in the study of new problems. In dealing with others, they are aware of the probable direction and character of instinctive reactions. They can understand and make allowance for fixed mental attitudes due to environmental nurture.

Against these we may place men who do not possess these powers, and whose personal and social effectiveness are impaired by this lack. These persons have poor control of their own careers, and are weak or negative in their co-operation with, or influence on, others, because chance has not favored them with comprehension or appreciation of fundamental principles of psychology, as even now known.

But we perceive that even informed men have won their knowledge with difficulty, and wastefully. The conclusion may easily be reached that during the secondary-school period it should prove possible and would be profitable to give some systematic instruction in a very concrete and objective psychology, and training in the application of this knowledge to the interpretation and control of the personal and social affairs of life.

Personally, I believe that we shall soon find an irresistible demand for just such a development as is here forecasted. We need it as a basis for vocational guidance, for training in the arts of study, for vocational training, and as a fundamental means of many forms of instruction in hygiene.

b) Again, we may find as a result of our studies that as a means of personal culture we greatly need to develop appreciation of good art. But in our present curricula we have hardly any teaching aims or materials organized to this end—not even in literature as now taught. So it may prove possible, by means and methods not now guessed, systematically to develop art appreciation—taste, discrimination, conscious standards, the constructively critical attitude which finally results in a general demand for good things.

c) It is now clearly within the reach of the secondary school to organize a systematic course in vocational guidance of such a character as quite definitely to minister to two distinct ends—one practical, the other cultural. This course should: (1) by objective study of the requirements and possibilities of the various callings in which men engage, by systematic examination of the potential powers of individual pupils, and by the deliberate cultivation of vocational ideals, enable the youth eventually to find his way into a vocation most suited to him; and, (2) by giving all pupils a survey of occupations and by having them all study their own possibilities in relation thereto, produce the sympathetic, socialized, and broadened vision essential to highest citizenship and to truly democratic personal culture.

d) The need of a more robust, more inclusive, and more generally effective physical education for adolescents is everywhere felt. The secondary school has here abrogated its true functions in favor of the athletic coach. It has subordinated its true mission in fostering right physical development to pandering to the social demand for spectacular contests between specially trained individuals or teams-the modern counterpart of the gladiatorial combat. It has toyed with gymnasiums and shower baths, but has largely neglected to provide comprehensive programs of outdoor physical development, under conditions which would utilize in full measure possible voluntary unpaid leadership by advanced pupils (the future captains of martial, industrial, and social organization), which would insure compulsory activities for those unwilling to volunteer, and which would make for the idealization of vigorous, weather-defying, toil-enduring, adaptable physical hardihood. Here, also, lie large opportunities for an almost new field of secondary education.

8. Many other lines of constructive action will certainly be revealed as we systematically address ourselves to the study of the social objectives of the education of youths from fourteen to eighteen years of age. For many of our pupils the period devoted to secondary education must include time for definite vocational training. The needs in this direction are already becoming defined with some clearness. Efforts to this end must now center largely in obtaining real, not make-believe, vocational preparation. Very many of our present offerings of so-called vocational education are only shams—though they may be sufficiently good imitations of real vocational education to deceive the tax-paying public.

The final and general thesis is this: All education is tending to become scientific, to become a field of applied science, as are already medicine, war, navigation, agriculture, metal-working, and the like. But efficiency of action in any field of applied science is possible only on the basis of clearly defined aims. Right methods and sound testing of results are practicable only as they are consciously and specifically based upon clearly defined and carefully tested aims. To prove itself capable of developing in accordance with scientific standards and principles education must in all its phases formulate and study its new problems of aim.

"THE REPORT OF THE JOINT COMMITTEE ON GRAMMATICAL NOMENCLATURE"

A REJOINDER TO MISS CIPRIANI

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In the December issue of the School Review, Miss Cipriani, favorably known to scholars by her studies in French syntax, pleads vehemently in favor of teaching French from the point of view of French. The Report of the Joint Committee on Grammatical Nomenclature elicits her strong disapproval because—in her opinion—it commits the time-old mistake of looking at grammar through the outworn lens of Latin; whereas in this age of "declaration of rights" it seems to her timely "to face, even in the French classroom, the facts of the French language fairly and squarely as, to the best of our knowledge, they have been established by modern scholarship." "For centuries," she says, "the teaching of French grammar has been shackled and handicapped by grammatical traditions and considerations alien to French itself."

Unfortunately this plea, admirable as it is in intention, is based on a total misconception of the Committee's clearly defined object, which was to deal with the nomenclature of grammar as applied to the entire group of languages now taught in our schools—not with the grammar of any particular language—and on a failure to note that the point of departure of the Report is not Latin but English. The Preface of the Report (p. vii) reads: "For us English-speaking people, the whole foundation of grammatical study is laid in the study of English in the grammar schools. All our subsequent work, in whatever language, is based on this study. The Committee has kept this fact constantly in mind." And in a subsequent paragraph: "In starting constantly from English, the Committee has done no wrong to the study of any other language. In a few instances, fuller distinctions are needed in other languages to account for actual differences of forms . . . and these dis-

tinctions have to be provided for in their proper places." This program the published *Report* carries out with meticulous care; in special paragraphs devoted to the purpose it treats the claims of the separate languages, never forgetting that economy of terminology is as necessary in language as in science (p. vi); and while we may criticize the *Report* on this point or that, any unbiased person is compelled to admit that it is as fair to French as to any other one of the languages considered.

The fact is that our grammatical concepts are necessarily bound up with Latin. Time was when Latin and grammar were interchangeable terms. Happily that time is past. Modern science has broken down more than one of the strongholds of the past: among them the idea that grammar is itself a science, the eternal laws of which can be deduced from the human understanding. To mention but one instance, and that French, such a book as Brunot's l'Enseignement de la langue française shows what a large amount of clearing-up has been going on in the field of grammatical theory within the past twenty years, and to what an extent the task of the teacher of elementary language has been lightened and made attractive. At the same time, especially in the case of the modern foreign language, grammar will have to be taught, much as it has been in the past, as an organized system of rules and preceptsarbitrary in many cases, scientific where it is feasible, but in every case practical and adapted to the age and the aptitudes of the pupil. And for this purpose, Latin is still the best available model, especially for the teacher of the Romance tongues.

With these prefatory remarks, we may now pass on to Miss Cipriani's specific criticisms of the Report. With one exception, they deal with the problems of French: the terms "conjunctive" and "disjunctive" as applied to the French personal pronouns, the "past descriptive" as a substitution for the "imperfect," the types of the conditional sentence in English and French, and the theory of the French subjunctive. In all these cases Miss Cipriani would have the teacher make "truthful, not merely expedient, statements concerning these facts." As an ideal this is certainly desirable: "il faut enseigner des choses vraies" (Brunot), provided always the instruction remains practical. The trouble is that such "truthful" instruction (and it is quite evident that Miss Cipriani means

"historical") seldom is, particularly in the lower grades. We cannot teach the student the "truth" about me and moi, me le and le lui, au Mexique and en France, etc., without entering into a mass of historical details for which here in America he has neither the necessary preparation nor the particular aptitude. What we can do is to give him a working rule corresponding in particular to the practical difficulties with which he is confronted, and trust to a later, more advanced course to enlighten him on the reason for the phenomena he has learned. Even in the teaching of French to native children. M. Brunot has a word of caution for those who would employ the historical method. He says: "Il serait très utile à l'instituteur d'avoir quelques notions de grammaire historique pour lui. Quant à l'usage, très prudent, qu'il en devrait faire, ce serait, suivant moi, celui-ci: il en profiterait pour donner partout à ses règles un caractère moins raide, moins impératif, et, dans quelques occasions, il utiliserait directement l'histoire pour éclaircir et simplifier sa lecon." The Committee, it seems to me, has constantly kept this principle in mind, and its nomenclature is framed with reference to the actual phenomena of the languages considered. as they present themselves from the practical aspect of the elementary classroom.

In a paragraph on p. 37 the *Report* explains the choice of "conjunctive" and "disjunctive" in place of "stressed" and "unstressed," "tonic," and "atonic," which Miss Cipriani would prefer. Four reasons are given, which may be elaborated as follows:

1) "Conjunctive" implies "yoked with" the verb—in position and in syntactical relation; "disjunctive" implies the reverse. This is the obvious fact: je le lui donne; donnez-le-lui; llamandome, sentémonos, será difícil pro-

curárnoslos; mandatecelo, voglio darglielo.

2) "Stressed" and "unstressed," etc., fail to indicate the essential differences in position and function. In donnez-le, the le is "stressed" in function but not in form, yet it is "conjunctive"; in lui qui donne, the lui is "stressed" in function and in form, and it is "disjunctive"; in il lui donne, the lui is "stressed" in form but not in function, yet it is "conjunctive." In each case, the latter term and not the former describes the present situation "truthfully" and "practically."

3) "Conjunctive" and "disjunctive" have the advantage of not being

used elsewhere in grammatical nomenclature.

² Of course, donnez-moi, assieds-toi, have to be explained as "exceptions." But donnez-m'en and va-t'en are again regular.

4) "The disjunctive" pronoun in a prepositional phrase is often unemphatic. What is meant is that its function is unemphatic. Certainly penses à elle is not necessarily more emphatic than dites-lui. It so happens that one cannot say: pensez-lui. Thus, again it is the position that determines the form. Cf. Diez, Grammatik der romanischen Sprachen, III [Conjunctives Personalpronomen], p. 52.

Now Miss Cipriani questions whether the terms mentioned give the requisite "exact characterization" of the phenomena of of differentiation between personal pronouns. I was not a member of the Committee, and I do not know why the Committee chose "the most exact characterization" (Miss Cipriani, p. 681, omits the word "most") as determining their choice of a term. Personally, I should prefer saying "that term is chosen which gives the dominant or prevailing characteristic of a phenomenon," because the statement "most exact" is misleading and in the majority of cases it is impossible to find an "exact characterization." However that may be, her specific objections are based on two examples. They are: Il faudrait peut-être d'abord que lui songeât à moi, and Mes frères et mon cousin m'ont secouru, eux m'ont relevé, et lui m'a pansé. "In both examples," she says, "the supposedly 'disjunctive' lui and eux are just as much 'joined to the verb' as the more ordinary il and ils could ever be when placed in the same position, the real difference being obviously one of stress." This is certainly true if we limit ourselves to these examples, in which, as she admits, the more ordinary il and ils could replace, as far as grammar is concerned, the less ordinary lui and eux. But, as every French teacher knows, in every case except the third person the "conjunctive" form of the pronoun should be used in such sentences in addition to the "disjunctive," so that if we substituted in the first sentence a vous for the lui the dependent clause would read que, vous, vous songiez (better than songeassiez) à moi. Thus, it follows that the rule as given by Fraser and Squair (p. 272): "with lui so used,2 and [sometimes] also with eux, the conjunctive subject may be omitted," is the proper, most truthful rule to teach.

But Miss Cipriani also contends that since the Committee recommends that a term used of "a given phenomenon should be employed for every phenomenon identical in force," the terms

¹ Cf., however, il ne voulut pas lui.

^{2 &}quot;In appositions, often emphatic."

"stressed" and "unstressed" have the further advantage that they could be extended to the possessives, demonstratives, interrogatives, and the verb-in which last case they are already "un fait acquis for the better taught French classes." True as the last contention may be, and it is certainly helpful for the student to grasp that tiens is the product of stress whereas in tenons the e is unstressed (cf. acquiers and acquerons), still this fact in itself is sufficient reason for rejecting the principle of stress in naming the types of personal pronouns: (1) the principle does not "characterize." (2) the analogy between tiens-tenons and moi-me or lui-le cannot be made clear without elaborate explanation. As for the possessives, the characterizing factor here is function: the possessive pronoun has one form and the corresponding adjective another. So, too, when it comes to the interrogative, it is hard to see in what respect à quoi pense-t-il? is today more emphatic than que dit-il? the real difference again being "disjunctive" and "conjunctive." There remains the demonstrative. Here Miss Cipriani's contention has more weight: of the one form of the demonstrative (the ecce ille form) the "stressed" type has, in general, survived, of the other (the ecce iste form) the "unstressed." I Nevertheless, here again function is the outstanding featurethe demonstratives are pronouns or adjectives-and when it comes to the forms ceci, cela; celui-ci, celui-là, etc., the term "contrasting" demonstrative seems to me advisable. On this subject the Report does not pronounce itself, but celui sur la table ("the one on the table") and celui-là, sur la table ("that one, on the table") vary rather as to precision than as to stress; historically, celui being itself a "stressed" form.

In the matter of tense-names, Miss Cipriani levels her criticism at what she calls "the shackle" of the "past descriptive." She thinks the new name does not fit in with the "felicitous choice of names" made for the other tenses; and since the *Report* recommends "past future" (conditional) and "past perfect" (pluperfect), she suggests "past present" (imperfect).

The consistency she aims at in this instance, however, is more apparent than real. The first is a future tense (il viendrait) considered from a past point of view, expressed in the ending; the

ce O.F. co < ecce hoc is a separate case.

second is a past tense which was perfect (complete) in a past time. just as the "present perfect" is complete in a present time: the third is a past tense considered from the point of view of one present, as Armstrong, Syntax of the French Verb, p. 30, says: "the speaker takes the standpoint of a contemporary speaker." Since the first two names thus express the dominant idea by the second word of the term, it would follow that the "imperfect" should be called the "present past." But what of the student? He needs a name which he can readily grasp and which is not limited to a phenomenon occurring in one language. Since écrivais (scribebam) and écrivis (scripsi) are both past tenses and are liable to be confused, that term is preferable which by designating their respective function at the same time distinguishes between them. As the Report points out (p. 38), the idea of duration is not essential to the first tense, but the idea of situation is-"its office is always descriptive." This office it fulfils not only in Romance but also in Latin and Greek. Cf. Armstrong, Syntax of the French Verb, 2d, ed., p. 32: "In consequence of its character, the imperfect is especially suited to descriptions and to portravals of customs, and may quite properly be called the descriptive past." The "past absolute" does not have this function, and its own character of emphasizing the end or the beginning of a past action is quite foreign to the "past descriptive." Graphically, the one represents a line in the past, the other a point. Inasmuch as situation is contrasted, on the one hand, with occurrence or conclusion, on the other, hard as it is to find a perfect nomenclature, the terms chosen by the Committee are at least adequate. "Past descriptive" or "descriptive past" is selfexplanatory; "past present" or "present past" is not. As a secondary term the latter may be used, but it always requires a great deal of explanation on the part of the teacher to make advanced students grasp that there is such a thing as a present-within-the-past, and with elementary students bold is the instructor who would even attempt it. For these reasons, I think, Miss Cipriani's criticism of "past descriptive" is not well taken.

In taking up the vexed question of conditional sentences (cf. Report, p. 27), Miss Cipriani first draws attention to the fact that in French it is the context and not the form of the sentence which allows us to decide whether a condition is present, future, or

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both simultaneously. This is obviously true since si meaning "if" cannot be followed by a future tense: s'il le fait, il aura raison, may signify either "if he is doing this, he will be in the right" or "if he shall do this (if he does this), he will be in the right," or it may have both meanings. The Report is silent on this score: but the classification it gives occasions no difficulty for the teacher of French who has instructed his class on the proper use of si. So that inherently there is no valid reason for making a new classification, such as Miss Cipriani thereupon proposes, based on the content rather than the form of the sentence. Besides, as the Report says: the idea of time "seems easier for the student to build upon. since the distinctions past, present, future are familiar to him through constant use elsewhere." As to her further stricture on the Committee's classification, namely, that the type "if he should be doing this, he would be doing right" despite its rareness should have been taken into account by the Report—which gives only "if he were doing this, he would be in the right," the point is decidedly well taken. The former is "ideal," "neutral," "less vivid," and the latter is "contrary to fact"; both are present time. But instead of substituting, as Miss Cipriani suggests, the term more vivid for the term neutral, is it not preferable to retain the latter term, because of its contrast with contrary to fact, and then subdivide neutral into more vivid and less vivid for both the present and the past conditions? In this way, the principle of the Report's classification would be kept, with a distinct gain in clearness.

Finally, in her last paragraph, which deals with the French subjunctive, Miss Cipriani holds a brief for defining the moodidea of the subjunctive for elementary pupils—an evident omission on the part of the Report. But the difficulty is, and doubtless the Committee was aware of this, to find a statement on which the authorities will agree. Miss Cipriani herself admits that while "one of the chief functions of the subjunctive in modern French is to indicate that the assertion is not made as a fact, but as something conceived in the mind of the speaker (Armstrong), to express a thought, an idea," nevertheless she "feels" strongly that "subjunctives of feeling and opinion are, both in Italian and French, used deliberately with the full consciousness of expressing a fact, not a thought."

"And how," she continues, "could it be otherwise with the characteristic Romance 'sense of reality'?"

Is she not confusing here what is real with what is an accepted fact? There are nations, and the French are at the head of them. to whom ideas seem more real than facts. The observation has been frequently made, and I need not insist. But all this has nothing to do with the function of the subjunctive. The fact is that the subjunctive does express both facts and ideas as concepts; the subjunctive assumes that the predicate is an idea, "it represents the predicate as an idea (Gildersleeve)." Je regrette qu'il soit malade means "the idea or thought of his illness makes me regret": and so it is with most French subjunctives. I believe. When, however, it is not so, then the modern language has carried over the construction from the past-that is, the present reason for the subjunctive is "historical." On this account the Committee may not have wished to generalize as to the actual nature of the mood; and, on the whole, their caution seems wise. In support of the foregoing view. I may cite two writers neither of whom can be accused of not approaching the subjunctive from the Romance point of view: Professor Brunot, who says (op. cit., p. 48): "Toutefois dans 'je ne doute pas qu'il ne vienne' pourquoi encore le subjonctif, puisqu'il y a maintenant assurance? C'est que, comme souvent, la forme l'emporte sur le sens, et cela est commun dans toutes les langues"; and M. Foulet (Modern Language Notes, XXV [1010], 227)1: "Pourquoi la langue dans l'ensemble met le subjonctif après il faut que, c'est une autre question: il v en a peutêtre des raisons logiques, il y en a plus probablement des raisons historiques. Mais ou je me trompe fort, ou l'individu (et je le prends cultivé et raisonnant sur sa langue) ne met ici le subjonctif que par la force d'une habitude invincible."

The Report of the Joint Committee on Grammatical Nomenclature is doubtless a compromise between various conflicting views. It would be nothing short of a miracle if all its recommendations should prove acceptable. But let us at least be fair and make our criticisms in the same broad spirit in which the Report was conceived and executed.

²Cf. also the sound remarks on this subject in Professor Hale's "A Century of Metaphysical Syntax," Publications of Congress of Arts and Science, St. Louis, 1904, Vol. III.

THE MEANING OF STUDENT MARKS

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It is the purpose of a marking system to evaluate the academic work done by students in the courses of the various curricula. The marks themselves may consist of a series of letters or, preferably, of numbers arranged in descending scale; the most meritorious work is designated by a character at one end of the scale and the poorest, failure, by the character at the other. On the basis of marks given are awarded academic honors, additional credit toward graduation, prizes, etc.; and continued membership in a class or in a school may be conditioned upon maintaining some predetermined standard. The marks given may be expected to incite students to better work. Fairness in the award of honors, justice in determining upon failures and dismissals, and incitement of the student to better work can be attained only to the extent to which a common standard for the awarding of marks is understood, accepted, and acted upon.

In many problems of evaluation two kinds of standards, positive and relative, are possible. A positive standard implies the possibility of defining exactly some unit of measure, a foot, a pound, a calorie, etc., that never varies and that can be recognized and identified. To evaluate a magnitude by a positive standard is to discover how many times the unit is contained in it, e.g., the number of feet in a coil of rope, the number of calories in a liter of alcohol, etc. Relative standards imply no rigid unit. Magnitudes or qualities to be evaluated need only be ranked from greatest to least, or from worst to best. A series of red cards may be ranked in order of brightness to the eye; or a group of men may be ranked according to stature from tallest to shortest without resort to any standard unit of measure; and if only rank in stature is wanted no positive unit of measure is needed. Appreciable differences of degree may

always be given relative appraisal, but they cannot always be measured positively.

Rigidly to define a positive standard of excellence in academic work is impossible: for excellence in academic work is not a single variable but a complex of variables; hence there can be no positive unit of measurement. Nor are the variables themselves-logical thinking, previous training, interest in the work, etc.—simple variables subject to exact observation, measurement, and record. A theme written in a course in English composition cannot be? ideally perfect nor quite ideally bad: nor can it be said of any given theme that it falls at a definite point on a graduated scale between these two extremes. To what extent an apt phrase should be allowed to compensate a grammatical irregularity is not a thing to be expressed quantitatively. Inability to add infallibly does not preclude all possibility of doing excellent work in plane geometry. No doubt the illustrations cited will suggest a multitude of others to any teacher who has ever given serious thought to the meaning of marks in his own classes and in his own subject. Some. perhaps, may feel that the obstacles encountered there are not insurmountable, but will anyone have the hardihood to maintain that the relative badness of a comma blunder and of a misplaced decimal point, of a misspelled word and of an omitted digit, can be exactly determined? Is one twice as bad as the other, or three times: or does it "depend upon circumstances"? And if so. upon what circumstances? If a common basis for all departments is sought, some means of equating excellences and errors is essential. And since there can be no positive unit of excellence, any system of marking that implies positive units of excellence is foredoomed to fail.

But it is possible to define relative standards of excellence with sufficient definiteness to serve the purpose of any school's marking system. Of two themes written as samples of a particular branch of English writing a competent instructor will seldom be at a loss to say which is the more successful; certainly if the choice is so difficult as to create doubt, a choice one way or the other cannot be said to constitute injustice. And so an instructor may, without substantial unfairness, rank a series of themes from best to worst; so, too, he may divide a series of themes into consecutive groups

according to any predetermined classification of marks and assign to each group its appropriate relative value. This ranking is obviously easy when all members of a class work at identical assignments: nor is it difficult to do substantial justice where individual assignments are made, for a competent instructor may be assumed to be able to appreciate relative difficulties to be dealt with quite as well as relative excellences in achievement. And to fix the rank of a student's work for a whole term it is necessary only to reduce the values of all marks given to each individual to some convenient form of simple average such as the arithmetic mean, the median, or the mode. And if, in all courses finding their constituencies among students approximately equally advanced in their academic work, virtually equal proportions of students be given each mark, the ranking of students thus obtained must furnish a dependable basis for such administrative action and such academic awards as the school bases upon marks given.

The qualifications of the latter statement are a highly essential part of it. For it may be maintained (though it is not here asserted) that a better quality of work should be expected of a Senior taking some Freshman course than is expected of other members of the class; and this Senior may be marked on the basis of what a whole group of Seniors in such a course might be reasonably expected to accomplish. And if, as we find in universities and colleges, continued membership in the school is conditioned upon maintaining some minimum average performance, it is to be desired that whatever elimination of weaker students is to take place should take place as early as possible. Because of this and because entering classes generally include a higher proportion of weaker students than those classes further advanced, it may be desirable to give a smaller proportion of the highest marks and a larger proportion of the lower marks to incoming classes. In public high schools this problem of elimination is at a minimum; and no violence to justice is done if within all class-groups virtually equal proportions of students be awarded any given mark.

The other qualification, viz., that *virtually* equal proportions of students in all class-groups be given each mark, must not be taken to mean that any prescribed standard of proportioning must

be followed without respect to the number or personnel of the class-group. Class-groups may be good and bad relatively to others, just as individuals may. The smaller the characteristic registration for a section of a course the larger must these group variations be. If, in addition to the standard proportioning of numbers to receive each mark, limits of variation from this standard sufficiently wide to accommodate differences between class-groups be set or, better still, if each student be marked with reference to some larger and more stable group of, say, 100 students, e.g., if a given mark is made to mean that the student receiving it would stand among the best or the second or the third tenth of the ideally large group, no substantial unfairness to the individual student need result from the accidental size or personnel of the class.

No very extensive experience on the part of the instructor is necessary to enable to him to pass judgment upon a class as a whole as compared to others that he has had or that he may expect to have. Nor is it more difficult to estimate in nine of ten cases within what tenth of a group of one hundred the work of a given student stands. Few teachers of any considerable experience who have given thought to the problem will doubt that the fluctuation among small groups is large. Within the writer's own very brief experience there has been one class-group of thirty-one no member of which attained such an excellence of performance as to rank him among the best tenth of 100 students, and there has been another class-group of eighteen within which four students were clearly the best the writer has ever had.

The writer has recently made a statistical study of all marks given during a period of five years in ten courses (two in each of five departments) in a very large school whose marking system is based upon implied positive standards. The final marks of 8,500 students were included. Forty instructors had had more than 100 students each in the groups included. A complete statement of the method followed and of the results would be premature at this time, but at some time in the near future, when the writer has made similar studies of marks given in other schools with different marking systems, the methods and results will be published. A few of the more significant conditions found may, however, serve

the purpose of illustrating the need of some definitely defined standard for the distribution of marks.

Large differences in marking were found as between different departments. In one course out of 1,232 students only 20, or 1.6 per cent, had received the highest mark in the range. In a course in another department out of 395 students 113, or 28.9 per cent, had received this highest mark. In the first of these two courses 37.7 per cent received marks below the average required for graduation. For the other course the corresponding percentage was 10.4. These two courses draw their constituencies from students equally advanced. Administrative action and award of honors are based upon the marks in one course precisely as they are in the other. Can any given mark be reasonably supposed to represent the same relative excellence in both courses?

Wide differences are found as between different instructors giving the same course at the same time to equally advanced students. In one course one instructor with 343 students during the period gave no one the highest mark in the system. A colleague of his giving the same course during the same terms to 302 students gave 11.6 per cent of them the highest mark. In another course in another department one instructor gave the highest mark to 47 out of 101 students. A colleague of his gave only 14 out of 108 as high a mark. In one course one instructor with 345 students gave 22.2 per cent of them marks below the level required for graduation. A colleague offering the same course gave only 1.6 per cent of his 302 students marks as low as this. These differences, though larger than the general run, are neither extreme nor uncommon. The particular comparisons are made only because they include fairly large and fairly equal numbers and because the classes were taught in the same terms.

Within this group of courses any student, no matter what his ability (unless he were among the very best or the very worst), who had had the best of unofficial advice as to which instructors were the high markers could have averaged more than one mark higher for the ten courses (there are nine co-ordinate marks in the system) than he would have obtained had he taken the same courses with the lower marking instructors. He could have elected five courses with high-marking instructors that would have yielded

him, on the average, more than two marks higher on each course than he could have had on the other five courses with low-marking instructors.

A number of other important matters which may be dealt with briefly at this time appeared in the course of this statistical study. One of these is that plus and minus marks in conjunction with the letter or number characters representing the grades of the system are likely to lead to much confusion and may, indeed, quite disrupt the workings of an otherwise good system. If "i+, i, and i-" are used as co-ordinate and separate marks teachers will be very likely largely to disregard one or two of them and regard a i- as a poor i, or a i+ as a good i and, in consequence, to return almost no i-'s, etc., i.e., to use only a part of the marking system. It is better to make the group classifications sufficiently small and to have a separate single character for each.

Another of these smaller points is that numbers serve the purpose of designating relative standing rather better than letters. If there are to be eight marks in a system each standing for some particular $12\frac{1}{2}$ per cent of the students a mark of 6 more readily conveys to the student that 25 per cent of the students rank below him and $62\frac{1}{2}$ per cent rank above him than does a mark of F; for everyone is familiar with the idea of the relativity of simple numbers.

A third of these smaller matters is the tendency of some instructors, if left to their own notions, to award the highest mark of a system only to those rare students who prove by the extraordinary excellence of their work that they are completely out of place in the course and who, for their own best interest, should be put in more advanced work where they will find something to struggle with. (This, quite obviously, does not apply to such courses in necessary sequence as elementary mathematics.) To reserve a mark for this purpose is very largely to use a marking system with one classification less than is intended. This must not be taken to mean that this upper class must not be made small; it may be extremely desirable to have a special high mark to mean that the student awarded it shows high promise of future excellence in the more advanced work of the subject. Used for this purpose the mark reports practically a positive standard, but none the less valid.

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A fourth matter is the distinction that ought to be made between the mark that indicates failure and the marks that indicate successive degrees of excellence in passing work. Here is another quasi-positive mark. The number to be required to repeat a course either for credit or as a condition to more advanced work in the same subject ought to depend rather upon whether or not the student has proved himself able to do more advanced work than upon any number that it is estimated should be failed. The number that should be required to repeat can always be best determined by the department and by the individual teacher. The determination of failure is more a matter determining what shall constitute excellence of work than of determining relative rank of students.

It is not intended here to advocate any particular proportion of marks, but an illustration may serve the purpose of showing what some particular distribution of marks will do. Let us suppose that our marking system for those who pass includes ten classifications, 1, 2, 3, 4 10. Let I represent the best work and 10, work barely passing (failure being represented by 0 or by some letter). Let the best tenth be given the mark I, the second tenth, 2, and so on. A mark of I or of 6 not only gives the student's rank with relation to others in his course but is strictly comparable with a like mark in any other course. A mark of I obviously means more in such a system than it could possibly mean if one teacher characteristically gave one-third of all students the highest mark in the system and another teacher as characteristically gave the mark to one-twentieth of his classes.

The hypothetical system of distributing marks sketched above may be altered to suit the conditions of any school. If it seems desirable to make a special mark to indicate those who show great promise of future excellence in a department the proportioning of marks may be limited to those who fall outside both this class and the failure class. If fewer classifications seem desirable it is easy to change the proportioning. But the important matter is to decide *first* what is wanted of a marking system and *only then* to fix upon a proportioning that will bring this about.

A PLAN FOR THE DEFINITE RATING OF SECONDARY SCHOOLS¹

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The individual colleges and the various accrediting associations, like the North Central Association of Colleges and Secondary Schools, the Association of Colleges and Secondary Schools of the Middle Atlantic states and Maryland, and our own Commission on Accredited Schools of the Southern States, have, after a rather long period of trial and experimentation which I hope has only well begun, worked out rather definite standards of accrediting secondary schools. But after these standards are applied, and the score cards evaluated, the result is that all schools are divided into two classes, one of which the colleges accept and the other of which they reject. When the lists are published the only difference between a school on the accredited list and one not on it, so far as can be judged from the list itself, is that one has met the minimum requirements, and may have scarcely done so, while the other may have just barely missed crossing the line of demarkation.

In other words, there is no relative rating of the schools—a school scoring 51 points out of a hundred being placed in the same class as a school scoring 95 points out of a hundred. For the purposes of the colleges this may suffice, because if the minimum standards accepted by them qualify for college entrance and college work, surely those schools whose standards are beyond the minimum are all the more acceptable.

The standards of accrediting, therefore, do not in themselves, as at present administered, afford an adequate method of rating schools, in that their relative standing is not determined. For example, there were 278 schools accepted by our commission for

¹ A paper read before the Association of Colleges and Secondary Schools of the Southern States held at Nashville, October 28, 1915.

the year 1914-15. So far as can be judged from the report itself one school on the list is just as good and no better than any and every other school on the list.

In justice to the schools themselves it is asserted, with reason, that some method should be devised and adopted of rating the schools according to their relative merits and efficiency. Can such a plan be wrought out and put into practical operation? If so, who should take the initiative in the matter, the schools themselves or the colleges?

It is manifest that a school which barely meets the minimum ten standards of accrediting from a to j, inclusive, laid down by our commission is not in justice entitled to have its name inscribed as high up on the honor roll as one which meets each requirement in fullest measure.

It is not my intention to offer a complete workable plan or to propose a substitute for the present method of accrediting by our commission, but only to give the results of an attempt I made on my own account and for my own information to rate, or rather to check up, the schools from which students were received in the college department of the University of Virginia on the basis of the success of their students in college.

I believe it impossible to ascertain exactly the relative standing of schools by the application of any one single test, but if any one standard may be used as a reliable vard-stick it is the biblical standard, "by their fruits ve shall know them." Accordingly I set about to find a method of judging the efficiency of the schools by the products sent to us, in the following manner: I ascertained from the college records the names of all the students entering the college (the professional schools, law, medicine, and engineering were not included) for the three sessions of 1911-12, 1912-13, 1913-14. I then ascertained the total number of courses taken by all the students from each school during their first term in college, and also the total number of courses passed. Dividing the number of courses by the number taken gave me the percentage of success of that school. For example, School A had three students registered who took altogether ten courses and passed upon nine, making 90 per cent success. Another school had six students registered

who took 22 courses, passing upon three, making 14 per cent success.

If the students from each of these schools were average students and fairly represented the product of each school, it is clear that the former should be ranked much higher than the latter. The other facts about the schools seemed upon investigation to justify the conclusion indicated by the percentages of success and I felt warranted in temporarily withdrawing the latter school from our list, after reporting the facts, with the result that immediate steps were taken by the owners to strengthen the teaching force and raise the standards generally in that school.

It would hardly be fair to rate a school solely on the records made by its students in one college, but if the records of all of the students who entered college from that school in any given year or term of years were collected and treated as I have indicated a very fair and reasonably accurate rating, I am convinced, would result. There may be and doubtless are some schools which would not desire such a rating by such a test, but the best should have no fear of this method.

This raises the question suggested earlier in this paper: Who should take the initiative in this matter, the schools or the colleges? I am convinced that the schools themselves should do so, and should seek the co-operation of the colleges. If the schools on our accredited list, or any number of them, would get the records of all their pupils who enter the colleges and rate themselves as indicated, they would soon establish a standard of relative rating which would become as universal as the present standards of accrediting.

Table I gives some of the results of my investigation. I have omitted names for obvious reasons and have included no school sending fewer than three students, because it would not be accurate and fair to conclude that, because one or two pupils gave a school a rating of 100 per cent success the school was superior to one from which twenty-two enrolled and made only $69\frac{1}{2}$ per cent success. From this record one would, I think, be justified in concluding that school No. 42 is a better college-preparatory school than school No. 4 or No. 12, and that school No. 14 is not in the same class

with most of the others on the list. The general reputation of these schools agrees with this conclusion.

TABLE I

School No.	No. Regis- tered	No. Courses Taken First Term	No. Courses Passed First Term	Percent- age of Success	School No.	No. Regis- tered	No. Courses Taken First Term	No. Courses Passed First Term	Percent- age of Success
I	4	15	14	931	22	3	12	7	581
2	3	16	12	75	23	18	72	66	91
3	9	34	12	35+	24	3	12	9	75
4	II	40	26	65	25	12	56	46	82
5	3	14	9	64+	26	5	22	18	81
6	4	15	3	20	27	4	13	8	61
7	3 18	9	9	100	28	22	92	76	82
8	18	69	54	78+	29	7	23	19	82
9	6	26	14	53+	30	12	73	38 8	41
10	4	10	8	80	31	3 8	II		72
11	7	30	14	463	32	8	31	12	31
12	37	143	97	67	33	3	9	3 7	331
13	3	II	7	63	34	3 3 3	13		53
14	7	28	II	39+	35	3	14	14	100
15	3	12	9	75	36	8	19	17	89
16	4	13		61+	37	8	32	20	60
17	4	15	13	86%	38	6	25	20	80
18	42	148	95	64	39	II	45	33	731
19	6	27	24	883	40	5	21	15	71
20	7	21	11	52+	4I	4	16	11	682
21	3	14	13	92	42	33	128	106	83-

PSYCHOLOGICAL TESTS AND VOCATIONAL GUIDANCE

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"What service may psychological tests render in vocational guidance?" This question is frequently asked, but the psychologist has made little reply by way of actual accomplishment. Since some of the problems of vocational guidance have begun to receive formulation there has grown up a notion that in the administration of this work psychological tests are to play a prominent part. On a priori grounds one would readily suppose such to be the case. The mental processes concerned in occupations are important, whether the occupation exercises chiefly the higher mental processes or whether it demands only simple psycho-motor activities. Furthermore the victories won by experimental psychology in other fields are suggestive of like results in this field. Speculations have been made as to the part to be played by psychological tests, and such hints as have been ventured have been amplified by an eager public into a dream whereby the youth of the future will be subjected to a test or a series of tests and will then be advised to enter this or that vocation. The dramatic possibilities of the idea have appealed vividly to the popular imagination, and expectation is wrought to a high pitch. Psychologists deplore this, for however anxious they may be to be of service in this great social movement, they know they are unable to realize the roseate dreams of the public. The popular conception involves a process of "pigeonholing"-fitting an individual into an occupation which is supposed to be the one for which he was "cut out." This doctrine may be proved fallacious on several grounds. The objections may be couched in ethical, sociological, philosophical, or psychological terms. This discussion will take the standpoint of experimental psychology, and from this aspect the objections appear especially vivid.

A prime consideration that is neglected by the popular calculations concerns allowances for probability of error. Errors of observation are inevitable in all measurements. A single observation is less reliable than a series of observations. For this reason it is possible that vocational tests may require to be given several times in order to reduce this error to a minimum. Theoretical perfection would require that these testings be infinite in number. Such extreme refinement is not necessary, however, since methods are available which will indicate the reliability of a sampling. Nevertheless the certainty of errors must be acknowledged, and a single testing may not be adequate in the administration of vocational tests. Perhaps a system will be evolved by which the individual will be tested at intervals during his school course, as the organization of the Vocation Bureau at Cincinnati permits. Whatever arrangement is devised it will have to provide in ways at present unforeseen for probability of error due to chance samplings.

A further objection to a single-test system is that it makes no provision for the amount of improvement which an individual is capable of making in a given activity. If experimental psychology has shown anything, it has demonstrated that capacity for improvement varies greatly with different individuals, and the initial standing in a test does not indicate what the standing will be in successive performances. This brings up the question as to how far the individual may be trained in an activity, and when one observes the astounding increases in capacity displayed in everyday life one hesitates to limit the individual to any single vocational possibility. How to arrange conditions of testing so as to provide for this is problematic. Perhaps learning tests will be arranged whereby one learns laboratory samples of activities involved in the vocations under consideration. At any rate it is clear that any system of tests must take into consideration the fact that the first performance does not measure ultimate ability.

The current doctrine is further befogged by its neglect of the volitional factor in human endeavor. Behind all specific capacities lies something that is loosely called will, character, volition, etc. It has to do with the exercise of mental traits which are not directly measurable, at least not readily isolated. Psychological tests

appear to be limited when one undertakes to measure such traits as industry, persistence, honesty, etc., and the limitations make it impossible to predict what reaction will take place in future situations. The psychologist is forced to conclude that careers of willing, variable humans cannot be mapped out with scientific precision, as are the courses of the planets. Professor James pointed this out when he wrote, "However closely psychical changes may conform to law, it is safe to say that individual histories and biographies will never be written in advance, no matter how 'evolved' psychology may become."

Some attempts at vocational guidance are based upon interest as the ultimate criterion of aptitude. In evaluating this factor one should keep in mind several points. First, some people have no interest of vocational significance. Here interest as a criterion obviously fails. Other individuals have but one absorbing interest. Into this class fall the geniuses, and here interest is very properly regarded as an indication. In the majority of cases, however, a number of interests are present. They may be of equal strength. They may be in related fields and reinforce each other, or they may be in unrelated fields and antagonize each other. The perplexing thing about these cases of multiple interests is that the individual himself is unable to tell which is his strongest interest. How unstable it is. then, as a criterion of vocational aptitude. Finally it should be pointed out that interests are not always fixed things. They are extremely volatile. So pronounced are the vocational changes resulting from changes in interest that the concept of evolution may well be applied to the vocational choices of many individuals. A scientific study of biographies would yield many instances of this.

The psychological methods of studying interests fall under two heads—objective and subjective. The first involves the presentation of interesting stimuli to the individual and the measurement of his reactions. Objective methods are so slightly developed that little can be said on experimental grounds either for or against them. Their utility is questionable, however, inasmuch as the stimuli must necessarily be so simple in laboratory procedure as to have little vocational significance.

² Principles of Psychology, II, 576, note.

The subjective method is largely used in the practice of vocational guidance, usually taking the form of a questionnaire modeled after the pattern set by Professor Parsons. This method has value when used under laboratory conditions, but experimental psychology has shown that the introspections of an untrained person are usually not very illuminating, at least in revealing deep motives and hidden desires.

The conclusion to be drawn from the foregoing considerations is that any scheme of vocational guidance that uses interest as the chief arbiter in determining vocational fitness is on the wrong psychological basis.

The foregoing paragraphs have touched upon some of the implications in the present theory of vocational guidance and have shown some of the difficulties in maintaining the present notion about psychological tests. The facts seem to indicate that when tests come to be employed in a practical manner their function will be quite different from that now supposed. On many points the current theory of vocational guidance is seen to be untenable and it must be considerably modified if advance is to be made. Vocational guidance will have to be regarded, not as a process whereby one is designated as fitted by birth for one occupation and not fitted for another, with psychological tests as the chief instruments of selection; a more fruitful conception of the entire process is to regard it as monitory in nature. The individual should be measured from every standpoint—physiological, psychological, sociological, and economic. Each of these views of the individual is only partial and shows his standing in relation to the world in a specific mode. All these views must be taken in order to ascertain his true relation. These are not new measures to be applied in the guidance of vocational choice. They have been used ever since man began to work at diversified labor. Much of the vocational adjustment of the past has gone amiss, however, because of the use of too few measures; the individual has been viewed in only one or two relationships. For example, it has been common to thrust a lad into business simply because his father was thus engaged—the economic measure; men used to be designated for the ministry

because of especial intellectual brilliancy—the psychological measure. The vocational guidance of the future must do away with such partial and unstandardized criteria and must be characterized, first, by the use of all possible measures, second, by the taking of these measurements in a scientific manner.

This view immediately disposes of the demand that the technique of vocational guidance be developed exclusively by the psychologist. He is not more responsible for its advancement than is the sociologist, the physiologist, or the economist. The mental process constitutes only one phase of the occupational activity. To suppose that mental capacity alone suffices to determine occupational fitness is as absurd as the old doctrine that because a man is born the son of a king he is fit to rule. The individual should be regarded not only as an intellectual being but also as a creature of flesh and blood with a physical constitution amenable to the laws of the physical universe; as a social entity whose appeal to his fellows constitutes a vital part of his vocational adjustment; and as an economic force. When these facts are realized, much of the extravagant talk about psychological tests will cease and their proper rôle will become more intelligible.

In making positive suggestions as to the probable utility of psychological tests in vocational guidance it is difficult to speak with assurance because of the embryonic condition of mental tests. Most persons will agree that it is possible by means of psychological tests to distinguish between an individual who is characteristically slow and one who is characteristically fast; between one characteristically accurate and one characteristically inaccurate. as these characteristics are in extremest form. It is also possible to grade people with respect to the presence of certain qualities of ingeniousness, ability to adjust to new situations, etc. The methods for accomplishing these ends, however, are still far from standardized, and vast areas of technical ground must be covered before the tests will have vocational significance. Two methods of approach to the problem have been proposed. One consists in analyzing the complex activities of a vocation into their simple parts. Perhaps the well-known studies in telegraphy and typewriting will furnish a pattern for this. Perhaps the

time-and-motion-study methods of efficiency experts will furnish the model. At any rate such analysis might conceivably furnish laboratory samples sufficiently representative of an occupation so that a candidate for it might be tested. The practical difficulties of such a task are so enormous, however, that progress along this line does not look very promising. The mere physical obstacles to the plan are almost overwhelming. There are thousands of occupations in the United States. Each of these is subdivided into tasks with different psycho-physical activities. If tests were devised for each an appalling number would be required.

Another method of approach might involve the use of tests that do not represent particularly obvious activities of the occupation. Their value for test purposes would depend upon the degree of correlation between success in the tests and success in occupations. These tests might be simple or complex, probably the latter, judging from the recent tendency in mental test procedure. Examples of this method of approach are found in the work of the Vocation Bureau at Cincinnati¹ and of Dr. Jean Weidensall in mental measurements of working women in New York.

Dr. Walter Dill Scott of Northwestern University has been using psychological tests in the selection of salesmen, making measurements of association-time, accuracy of reasoning, memory, etc. It should be mentioned that the psychological tests are not the sole criteria by which selection is made: measurements are also made from physiological and sociological standpoints, and judgments of experienced employers are used. The method employed by Dr. Scott, it will be observed, enables one to make selections on an eliminative basis. The results of the tests are used in admitting a man only to the position of salesman. As to his fitness for other occupations nothing is said. Out of a number of applicants for a position, the attempt is simply made to select the one who shows greatest general mental ability. He is hired on the supposition that with high records in the mental traits tested plus interest and experience, he would be most likely to meet the exacting conditions of the selling occupation. Psychological

¹ Woolley and Fischer, "Mental and Physical Measurements of Working Children," Mon. Sup. to Psych. Rev., XVIII, No. 1, esp. pp. 245-47.

tests are similarly used at the University of Chicago as an aid in designating students for honor courses. A group of tests is used which exercises various kinds of mental ability, and students who stand highest in the tests are considered likely timber for advancement in special courses. The results of such a group of tests permit the assignment of ranks on the basis of amount of mental ability possessed without specifying relation to particular occupational tasks. It is quite astonishing to see how surely psychological tests will pick out the brightest persons in a group. All that is needed is a group of good tests measuring fundamental types of mental activity, and some method of combining the records in the several tests into a resultant score. This gives basis for a quantitative statement of amount of intelligence. The qualitative statement which involves specification with respect to occupations is another problem, and is the next step to be undertaken by experimental psychology.

The foregoing discussion shows that experimental psychology can make little contribution to a "pigeonhole" type of vocational guidance. It refuses to prognosticate and demands a new formulation of the problem. This is furnished by the *monitory* (warning) theory, which conceives of vocational guidance as a process whereby the individual is measured and warned of his strengths and weaknesses. The measures are to be made according to scientific procedure, and they show one's status only at the time of measurement. To such a program the psychologist will heartily subscribe. He will confine his measurements to the realm of mental capacities with the understanding that his is only a partial view of the whole problem and requires the collaboration of physiologist, sociologist, and economist.

The next step after measurement is to set up machinery for improvement of the individual. This is essentially an educational problem, and consists in directing the activities of the individual so as best to develop qualities that he needs. This is the ideal that motivates the system of psychological testing as employed at the University of Chicago. At first glance it seems remote from vocational guidance, but a more thoughtful consideration shows

¹ See Bloomfield (ed.), Readings in Vocational Guidance, pp. 103-8.

that it allows for a most useful kind of guidance—guidance in education. It attempts to provide conditions as favorable as possible for the development of useful tendencies and needed powers.

It may be objected that this theory of vocational education would result in education for no particular occupation and thus would defeat the very end of vocational education. Such a conclusion need not necessarily follow. The individual should always have a vocational aim. Let it be adopted as early as possible, so that the dynamic force of the "life-career motive" may be operative. The aim should be frankly regarded by those in charge of education, however, as tentative and as subject to change at any moment. This attitude will serve as a corrective to too early specialization and is essential in order to allow for the numerous possibilities that may arise in the social and economic environment. for the development of abilities, for the evolution of interests, and for those things that are called "chance" entrants into men's lives. These considerations make absurd any theory of vocational education that would cast an individual into an unchangeable mold.

The abandonment of the "pigeonhole" ideal with its distasteful work of prognostication will be welcomed by the psychologist. The adoption of the *monitory* conception and the assurance that one will not be obliged to assume the rôle of prophet should attract the ablest workers to this field. When false expectations are cast aside and unreasonable demands are withdrawn, it will be found that psychology can render worthy service in vocational guidance, and the psychologist may have a large share in the task of making adjustments between individuals and society.

TEACHING LATIN TRANSLATION

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Probably the most insistent of problems in connection with Latin teaching is that of translation. One has but to raise this question with a Latin class, "What is your most serious difficulty?" to get the answer, probably not in exactly these words, "I can't get this jumble of Latin words to mean anything." The wide-spread use of the pony is the pupil's own unguided reaction to this situation. Often the Latin teacher, to meet this latter situation, and with singular obtuseness to the real heart of the difficulty, redoubles his quizzings along the line of construction, thus emphasizing the purely grammatical phases of the subject. This process is disconcerting enough to the "pony-rider," but gives him little help in his fundamental difficulty. The teacher's time would probably be better spent if he went consciously about the task of teaching translation as a method of procedure.

The following experiment was begun in September, 1915, with a Vergil class of 24 students in Oakland City High School. Part of this class had had only Caesar; part, Cicero also. The course was elective. After some preliminary consideration, such as the life of Vergil, theme of the Aeneid, the Trojan War, etc., we turned to the problem of translation. The aim of the course was narrowed down to induce on the part of the student a maximum of translating ability, and to have him exercise that ability in my presence.

Usually, if a teacher attempts to anticipate any of his students' difficulties he does so by pointing out the usages peculiar to Vergil, but these can well be anticipated in the assignment from day to day, while the preliminary attention of the pupils should be focused on the more elementary, and probably elemental, usages which the pupil has met before but which he needs to have revived in order that they may be readily available. In order to meet this latter consideration we spent the first two weeks doing nothing but taking up word after word of the text, and by its ending inferring

the probable English phrase by which it should be translated. We avoided long excursions into grammatical fields. Often the pupil did not know the English equivalent for the word. His attention was thus focused on the element common to all translation, namely the association of an ending with a range of probable English words or phrases. This is the opposite of construction for construction's sake. For our purpose it is not important that the pupil know that -ense is an ablative of instrument, but it is important that he know its probable preposition as "by" or "with." The pupil gains no advantage by knowing that sit is a hortatory subjunctive, but he has gained when he has established the association between the verb form and the English idea of urging as expressed in such words as "let" or "should."

The pupil came readily to appreciate the fact that he could not always tell the usage of a word from its ending. This gave me the chance to say over and over again, "Neither could the Roman, but he waited until he saw it in relation to other words: then only

did it convey a definite meaning."

In reviving these associations as above, the teacher must use all he knows of the laws of association the effect of primacy, recency, vividness, frequency, similarity, and logical sequences. Some of the associations formed in former years must perforce be broken up. The pupil who formerly has learned the second person, singular, present, subjunctive, in relation to the first and third person must come to know the former as an isolated unit whose ending immediately touches off its English associate. Two weeks' drill on these fundamental associations, in addition to two or three years' previous training, enables the teacher to secure responses invariably correct: responses which indicate a wide and accurate range of associations of endings with English words or phrasal translations. He is then ready to proceed to more elaborate processes, leaving the associations of Latin words peculiar to Vergil's vocabulary with their English equivalents to be established from day to day in contextual settings.

After this preliminary drill we divided our class period into two approximately equal parts. The first was given to a fluent reading of the review and advance, telling the story, etc. The latter half was given over to making the pupil explicitly conscious of the fact that his problem was to translate from a language in which meaning is dependent upon the inflection of words into a language in which meaning is dependent upon position of words. I chose simple English sentences to show the latter and simple Latin sentences to show the former. It is a clear practical gain when a student realizes that the word eum by virtue of its form, and quite regardless of its position, receives the action expressed in the verb.

When this contrast between the two languages had been made as sharp as possible, I turned to the problem of increasing the range of the pupil's attentive processes. He was induced to take in word after word in a possible relationship, but to allow his mind to remain in suspense until the whole sentence had been apprehended. To this end I took up word after word of new material, and by questioning arrived at its probable use and meaning. Then I said, "Hold that word in mind until you have examined others in the same way on to the end of the sentence. Then you will realize if you were right in your preliminary conjecture." This habit is built up slowly.

Here is where the teacher should give his pupil the chance to see him translate. He should not be afraid to think out loud. He should afford his pupils every opportunity to see his mental processes in action, his perplexities, his associations, his inferences, his suspension of judgment, and, finally, his satisfaction as the sentence unrolls into a unit of thought.

In former days apprentices learned their craft by watching mastercraftsmen at work. If the master was pursuing the most economical method of procedure, his apprentice took on by sheer imitation an efficient skill, and consequently was saved the wasteful process of arriving at his own methods of procedure by trial and error-gropings. If the mastercraftsman could have analyzed his acts of skill into their elements, and have made his apprentice definitely conscious of these, the latter's progress might have been more rapid. By concentrating the pupil's attention upon the elements in his particular act of skill, and executing the act complete before him, the modern teacher of translation may combine the ancient principles of craftsmanship with the modern teachings of the efficiency experts: but this implies psychological as well as linguistic skill on the part of the teacher.

What shall be our final test for correctness of translation? In mathematics the pupil "gets the answer." This is his final check for correctness of procedure. In translating, the check is not so obvious. The best we may have is the satisfaction of our sense of consistency. When the elements of a sentence have been organized they must express a complete thought. When a pupil has decided upon a range of possibilities for a word, and has seen it in relation to other words, he is forced to choose the one best usage of the range of possibilities. By way of inducing this ability it has been my practice to translate all but the given word or phrase, thus leaving a blank to be filled in by the pupils.

This is somewhat analogous to the grammar-grade procedure in which blanks are left to be filled with appropriate expressions by pupils. In both cases the appeal is to the pupil's sense of consistency, though in both cases considerable sharp questioning is needed to show fallacies in the pupil's reasoning.

Summarizing, we find the following points entering into this mode of teaching.

 The recognition of the teaching of translation as a definite problem to which approximately one-half of the usual period is devoted.

2. The revival of the association of Latin word-ending with English phrases and modes of expression.

3. The attempt to make the pupil definitely conscious that he is to translate from a language in which meaning is determined by word inflection into one in which meaning is determined by word position.

4. The broadening of the pupil's attentive process, thus allowing a suspended judgment.

5. Giving the pupil the chance to see how his teacher translates.

The satisfaction of the translator's sense of consistency as a check for correctness.

I have no exact measurements of the results of this type of teaching except that this class has made more rapid progress than any of six preceding classes; that it does sight-reading well; that those pupils who have had Caesar only do their work creditably and, not the least, they enjoy their Latin study-recitation.

RESULT OF A YEAR AND A HALF WITH A SPECIAL-HELP PERIOD

The special-teacher plan has received unusual attention within the past few years. Where this plan is followed, the school authorities commonly employ a special teacher, usually of exceptional ability, to devote her time either to the retarded and the backward pupil or to the gifted child who, with extra attention given him, may be capable of passing more than one grade in one year.

There are several difficulties connected with this plan. Many school systems do not adopt it because an extra expense is involved. It is difficult to persuade a school board that the services of such a teacher are required. If persuaded of the advantages of such a teacher, the board may object to securing a highly paid teacher. A second and more vital objection to the special-teacher plan is that such a teacher does not know her pupils so intimately as does the regular room teacher and hence she may fail to appreciate the special needs or peculiarities of the children sent to her. Further. this teacher will not receive all pupils who require assistance. She may have sent to her only those who are clearly backward or capable of doing advanced work. Those on the border line are overlooked, and the regular teacher, not having a special hour assigned for giving help to her pupils, is but too inclined to feel her responsibility ended when she has sent her quota to the special teacher. Finally, the special-teacher arrangement provides no means for stimulating the timid pupil who may possess ability but who requires urging in order to measure up to his capacities. The teacher who knows him well may spur him on to undertake additional work where he could not be persuaded to venture by the special teacher.

Consideration of these objections to the special-teacher plan induced us to attempt first the introduction of a special-help period of thirty minutes daily for each grade above the third grade, to be devoted by each teacher to those of her pupils who might be benefited by it. This system involves no additional expense; it is

conducted by the teacher in charge of the room, who understands the pecuilar needs and characteristics of her pupils, and it centers the teacher's attention in a most vital manner upon the progress and capacities of her pupils. Undoubtedly the striking results shown by the data given below may be traced in a large measure to the increased efficiency of the teachers resulting from the diagnosis which this requires each teacher to make of her class. If the special-help period accomplishes this one result it has justified its introduction. Further, this makes "staying after school" no

longer a punishment; it is an opportunity.

A word of explanation should be said concerning the tables which follow. Before the inauguration of the special-help period the school policy had been opposed to the skipping of grades. This accounts for the absence of data in the skipping column for the year 1012-13. While skipping was not opposed in the first semester of the year 1013-14, the special-help period was not introduced until February, 1014. The tables, therefore, show the results of one and one-half years' trial of the special-help period. At the time of introducing this period the teachers were urged to give special attention to the needs of individual pupils. They were made to realize the disadvantages of the rigid graded system and our lock-step plan of progress. The special-help period was proposed as one means for overcoming these evils. As suggested above, this may account in part for the unusual results secured. On the other hand, a close supervision was exercised over the conduct of this period and the warning was constantly given teachers not to promote or to skip pupils beyond their capacities. No effort was made to tabulate results or to compare the efforts of teachers. The collection of the following data was made in connection with the city superintendent's annual report to the state superintendent, and originally for no other purpose.

It should be added that it is not the intention of this article to advocate a special-help period as a substitute for the ungraded room. The ungraded room has a peculiar function of its own. This we must retain, but extreme caution should be exercised in

selecting pupils for this room.

Tables I and II indicate that as a result of the special-help period 12½ per cent of the total number of children enrolled in the

year 1914-15 were enabled to complete from one and one-half to two year's work in one year. The tables also show a marked decrease in the number of children who dropped out of school following failure to pass their grades.

TABLE I

COMPARISON OF FAILURES AND PROMOTIONS IN THE THREE YEARS 1912-15 FOR THE
GRADES I TO VIII INCLUSIVE

Year	Enrolled	Promoted	Failed	Percentage Failed	Skipped	Percentage Skipped
1912-13	1,471	1,193	278	19.1+	None	None
1913-14	1,562	1,332	230	14.7+	65	4.1+
1914-15	1,544	1,324	220	14.2+	193	12.5

TABLE II

COMPARISON OF THE NUMBER OF PUPILS WHO DROPPED OUT OF SCHOOL AFTER FAILURE IN THE THREE YEARS 1912-15 IN THE GRADES I TO VIII INCLUSIVE

Year	Failed	Remained in School	Dropped from School	Percentage of Total Who Dropped
1912-13	278	197	81 79	29.I+ 34.3+
1914-15	220	169	51	23.1+

In the Psychological Clinic of January, 1911, Dr. Roland P. Faulkner proposes a simple method for measuring the efficiency of a school system. This is to locate the thirteen-year-old children. If a child be normal he should be above the sixth grade at this age. While data are lacking for the year 1912-13, the comparison of the years 1913-14 and 1914-15 shows a striking improvement in the status of the thirteen-year-old pupils. In 1013-14 there were 148 pupils of thirteen years of age in the school system, of whom 86 were above the sixth grade and 62 in or below this grade. In 1014-15, out of a total of 158 children of this age 105 were above the sixth grade and 53 were in or below this grade. Upon the basis of percentage this would be 43.2+ per cent retarded thirteenyear-old pupils in 1913-14 as compared with 33.5+ per cent in 1914-15. While this is much too large a percentage of children to have as educational misfits, the special-help period seems to have done much to relieve the situation.

EDUCATIONAL NEWS AND EDITORIAL COMMENT

REPORT OF THE COMMITTEE ON ACADEMIC FREEDOM

The report on academic freedom of the American Association of University Professors, by its committee, falls into two sections—the first, a declaration of principles, and the second, a platform of practical reform. Under the first head the committee considered first the meaning of academic freedom which, it believes "comprises three elements: freedom of inquiry and research; freedom of teaching; and freedom of extra-mural utterance and action." Of these aspects the last is the pressing problem, since "all five of the cases . . . recently investigated by committees of this association have involved . . . the right of university teachers to express their opinions freely outside the university or to engage in political activities in their capacity as citizens." Yet the committee finds it best to consider the question "primarily with reference to freedom of teaching within the university."

The committee finds the basis of academic authority to lie in the "board of trustees as the ultimate repositories of power." Whether in a privately endowed institution or in a state university, the committee wisely concludes that "the trustees are trustees for the public. It follows that any university which lays restriction upon the intellectual freedom of its professors proclaims itself a proprietary institution."

The distinction between a private and a public trust, the committee finds not as widely understood as it ought to be. In too many universities "the relation of trustees to professors is apparently still conceived to be analogous to that of a private employer to his employees. Trustees are not regarded as debarred by any moral restrictions, beyond their own sense of expediency, from imposing their personal opinions upon the teaching of the institution, or even from employing the power of dismissal to gratify their private antipathy or resentments."

Then follows the most important passage in the whole report, the paragraph which defines the relation between trustees and the professor:

The latter are the appointees, but not in any proper sense the employees, of the former. For, once appointed, the scholar has professional functions to perform in which the appointing authorities have neither competency nor moral right to intervene. The responsibility of the university teacher is primarily to the public itself, and to the judgment of his own profession; and while, with respect to certain external conditions of his vocation, he accepts a responsibility to the authorities of the institution in which he serves, in the essentials of his professional activity his duty is to the wider public to which the institution itself is morally amenable.

After thus ably defining the status of the faculty, the report discusses the chief dangers to academic freedom, having special reference to the teaching of the social sciences. It discovers these dangers to be two: (1) the danger of restriction in privately endowed colleges and universities on the expression of opinions which point toward extensive social innovations or call into question the practices of large vested interests. (2) In the state university the menace consists in the repression of opinion on similar subjects that might be considered too conservative in view of particular political situations. The committee sadly and perhaps unadvisedly concludes that "it almost seems as if the dangers of despotism can not be wholly averted under any form of government."

What then is the proper check upon the faculties of our universities? Only those restrictions which the professorial office by its very nature imposes on itself: that conclusions "must be the fruits of competent and patient and sincere inquiry" set forth "with dignity, courtesy, and temperateness of language." The initial responsibility for the maintenance of professional standards properly lies, not in the hands of trustees, but in the hands of university teachers themselves. Absolute freedom of research and discussion may legitimately be restricted only in the case of the immature students. It is not proper to consider classroom discussions as public utterances, nor to deprive a college professor of the political rights vouchsafed to every citizen.

After all this labor it is disappointing to find the practical recommendations of the committee somewhat vague. While there ought

to be clear understanding of the tenure of appointment, that reform does not strike at the heart of the problem. Nor is the appointment of a judicial committee of the faculty for the hearing of dismissal cases anything but a negative and unsatisfactory compromise. The initial difficulty lies with the appointing power, that is, in the trustees; and unless the regents are themselves professional in their attitude, the initial cause of much friction will not be removed. A judicial committee of the faculty can hardly prevent trustees minded to do so from making appointments "on their own sense of expediency" or from "personal opinions upon the teaching of the institution"—evils the committee seeks to remedy. If the dangers are not exaggerated, the reforms must be sure and radical: nothing less than the permanent appointment of a faculty representative (or representatives) to the board of trustees, not as a legate but as a full member of the board. Only by some such step will the dignified, direct, and permanent participation of the faculty in the administration of their own colleges ever be attained.

THE MATHEMATICAL ASSOCIATION OF AMERICA

On December 30 and 31, 1915, there was held at Columbus, Ohio, the organization meeting of a new national mathematical association, the call for which had been signed by 450 persons representing every state in the Union, the District of Columbia. and Canada. The object of the new Association is to assist in promoting the interests of mathematics in America, especially in the collegiate field. It is not intended to be a rival of any existing organization, but rather to supplement the secondary associations on the one hand, and the American Mathematical Society on the other, the former being well organized and effective in their field. and the latter having definitely limited itself to the field of scientific research. In the field of collegiate mathematics, however, there has been, up to this time, no organization and no medium of communication among the teachers, except the American Mathematical Monthly, which for the past three years has been devoted to this cause. The new organization, which has been named the Mathematical Association of America, has taken over the Monthly as its official journal.

There were 104 persons present at the organization meeting. The constitution and by-laws together with a full report of the proceedings will be published in the January issue of the Monthly. The following officers were elected: president, Professor E. R. Hedrick, University of Missouri: first vice-president, Professor E. V. Huntington, Harvard University; second vice-president, Professor G. A. Miller, University of Illinois; secretary-treasurer, Professor W. D. Cairns, Oberlin College: Publication Committee, Professor H. E. Slaught, University of Chicago; managing editors, Professor W. H. Bussey, University of Minnesota, and Professor R. D. Carmichael, University of Illinois. These officers, together with the following, constitute the Executive Council: Professor R. C. Archibald, Brown University; Professor Florian Cajori, Colorado College; Professor B. F. Finkel, Drury College; Professor D. N. Lehmer, University of California; Professor E. H. Moore, University of Chicago: Professor R. E. Moritz. University of Washington: Professor M. B. Porter, University of Texas: Professor K. D. Swartzel, Ohio State University; Professor J. N. Van der Vries, University of Kansas; Professor Oswald Veblen, Princeton University; Professor J. W. Young, Dartmouth College; Professor Alexander Ziwet, University of Wisconsin.

WISCONSIN REPUDIATES PROFESSIONAL TRAINING OF TEACHERS

Wisconsin has been making an effort in recent years to raise the teaching profession in the secondary schools to a high level. The certification law requires that teachers entering the secondary schools of the state shall have the same credentials as are required by the department of education in the state university for graduation from the division which trains teachers for secondary schools. The department of teacher-training of the University of Wisconsin has been vigorous in its gradual increase of requirements for those who graduate from this division of the University. In this way the state has been supplied with an automatic agency which has operated gradually to raise the level of the teaching profession. It is stated that the law has, in the past, not been fully operative because the State Superintendent has in many cases issued certificates without requiring the full compliance with this law.

At the present time there is a certificating board to which these matters are referred. This certificating board gave out, on November 27, a statement with regard to its interpretation of the law, and in this interpretation it has been supported by the action of the Board of Regents of the University of Wisconsin. It appears that the division of the University which has had charge of the training of teachers has been advancing a little too rapidly, according to the views of the State Superintendent and some others in the various departments of the University and throughout the state. Apparently officers in the English department, for example, have desired to license their students without the long and laborious training that is involved in knowing something about the organization of secondary schools and something about the methods of teaching high-school subjects. Other departments have thought of these professional requirements as purely perfunctory or entirely unnecessarv.

The licensing board is now clearly convinced that the state would lose greatly by requiring any such high standards as have been required in the past. To be sure, the example of California would seem to be instructive if these gentlemen had examined that record. The state of California has had, for some years, a rigid requirement of professional training. The result is that the secondary schools of that state have gone forward with great rapidity. Wisconsin might have served as a shining example in the middle states of a similar improvement in secondary schools and in the teaching profession, but the board has seen fit to act in exactly the opposite way. The sophistry in which it has indulged is set forth in the following quotation from its own statement. We quote it at length because it furnishes an interesting example of how one can throw overboard all of the strong principles for which his predecessors have been laboring.

When the University raised its minimum to seventeen credits in psychology and pedagogy, the question arose what effect this action should have on the policy of the board of examiners and of the state superintendent in regard to the licensing of teachers. Should the graduates, not only of Ripon and Milwaukee-Downer, but all who desire to enter the state—the graduates of Chicago and Harvard—be obliged to meet the new standard? This question was practically settled by the Board of Regents of the University, who adopted

a proviso to the effect that the adoption of the new requirement should not operate to increase the requirements of other colleges in the state. Although this vote has no legal effect in controlling the board of examiners, it is plain that in equity and sound judgment the examiners could not disregard it.

Another question presented itself. Should students of our state university be placed on a different footing from those graduating from other colleges, as to their privilege of choice of taking twelve or seventeen credits in psychology and pedagogy? Such a course seemed to the Regents inequitable, and they provided that the adoption of the new requirement was with the understanding that graduates of the University of Wisconsin who do not take the increased requirement in psychology and pedagogy should not be placed at a disadvantage in comparison with graduates of other institutions.

The Superintendent will grant licenses as a matter of course to all graduates recommended by the University as having fulfilled the new requirements. Applications of graduates from the University of Wisconsin who offer only twelve or fewer credits in psychology and pedagogy will hereafter be referred to the board of examiners, and the examiners will license such graduates of the University of Wisconsin on the same terms with graduates of other institutions of higher learning. The board will receive the evidence of graduation and the certified standings of such students from the registrar, and will issue licenses to them in accordance with the regulations governing in the case of graduates of the other recognized colleges.

This discussion opens the way for the ruling which now admits to the faculties of the high schools of Wisconsin college graduates who have never taken any professional work. There is a regulation to the effect that some professional reading will be required during the teacher's experience before he can get a permanent license. The urgency with which this requirement will be enforced can probably be guessed from the attitude of the board with regard to professional requirements in general. Certainly the amount and character of such professional work taken during the teacher's active experience will be highly questionable if it is not checked up by some vigorous institution entirely in sympathy with that type of training.

The North Central Association of Colleges and Secondary Schools passed a regulation some years ago which makes it essential that the teachers who are admitted to schools within this Association shall have some professional training. Wisconsin evidently does not care whether the North Central Association requires such training for better schools or not. Wisconsin has shown, during recent years, that the development of high standards in professional education is extremely difficult in a democratic community. This last act of repudiation of a stand taken some years ago is only part of a general campaign of educational deterioration which has been going on in that state for some time. One hardly needs to be a prophet to say that Wisconsin will reap the result of this withdrawal from former standards in a lower grade of teachers entering her secondary schools. One certainly does not need to be a prophet to point out that this backward step will be a dark spot in the history of the state when in later years high standards are again restored, in the hands of those who realize that professional training is as essential in the teaching profession as it is in any of the other professions which have to do with the welfare of the community.

C. H. J.

MORAL CONDITIONS IN HIGH SCHOOLS

Two notable papers dealing with this question recently appeared in *Religious Education*. Franklin W. Johnson, of the University of Chicago High School, confines himself to a discussion of dishonesty among high-school students; Jesse B. Davis, of Detroit Central High School, Grand Rapids, Michigan, considers gambling, drinking, questionable places of amusement, and personal impurity as well as dishonesty. Each of these men is speaking primarily of conditions in his own school.

Principal Johnson says that dishonesty in athletics, in class work, and in the common practice of "filching" signs and souvenirs is the reflection chiefly of two causes: first, a fundamental lack of moral standards in society at large, the children being as honest in their sports as their parents are in business; and, secondly, the importance and the glare of publicity which are placed upon interscholastic athletics, accompanied by an exaggerated desire to win, and the sedulous aping of the evil practices of college sports.

Principal Davis describes a unique investigation of 614 boys in Detroit Central High School made by a student committee. With due reservation for inexperience and error in judgment, Superintendent Davis believes that the findings of this committee are substantially correct. They found that 13.2 per cent of the boys were habitual smokers, and that 32.7 per cent sometimes indulged. Twenty-four per cent were guilty of gambling, gambling being defined, not only as

betting on games, but also as paying for a losing pool game, pitching nickels, and the like. There were 9.1 per cent of the boys who were guilty of drinking intoxicating liquors, most of them having been taught to do so in their own homes; 10.9 per cent wasted time in places of questionable character; 3.2 per cent were classified as impure in personal or social relations. In connection with this topic, says Mr. Davis: "It may be added that the testimony of the physical director was that at that time there was not a single instance of venereal disease among the boys of the school."

The problem which these two educators are attacking is fraught with untold difficulties. Under the leadership of each man there is being organized a definite program for the cultivation of effective public opinion among the students themselves. A sturdy and vigorous tradition of honor, of honesty, and of purity, a tradition which will ostracize the offender, together with some manifestation of these traditions in the form of a student court or a student supervising body, appears to be the essence of their program.

EXTENSION OF THE POWERS OF THE COMMISSIONER OF EDUCATION

Secretary of the Interior Lane, in his annual report, gives serious attention to the status of the Bureau of Education. He asserts:

The United States maintains a Bureau of Education in this department, which, upon a small appropriation, collates as best it can the figures and facts which most inadequately tell the story of the growth and use of this most brilliantly conceived piece of governmental machinery.

The American people are not indifferent to their schools. Quite otherwise. They pay for their support almost as much as they do for the support of the entire federal government; in round numbers, three-quarters of a billion dollars a year, which keeps an army of 600,000 teachers at work. Education is indeed our foremost industry, from whatever point of view it may be regarded. Yet I am assured that it has made less progress than any of our other industries during the past thirty years. With all the marvelous record of what the mind of a quick people may produce to make life happier and nature more serviceable, how little can be shown as our contribution to the methods of improving the mind and skill of the young! We have gone to Europe—to Italy, Switzerland, Germany, and Denmark chiefly—for the new methods with which we have experimented, and Japan has found a way to instruct through the eyes and hands that will make these very practical people still more distinguished.

Yet here and there under rare leadership may be found in this country the most striking proofs of what can be done to tie our schools to our life. The hope is eventually to make the school what it should be, and easily may be, the very heart of the community—social club and co-operative center as well as school.

There would seem to be nothing visionary in such a hope. To effect this evolution there is needed primarily leadership, and this the government must give if it is to realize its desire for a people who are both skilled and happy, The spirit of our people is against a paternal government. We do not take with kindness to an authority that is mandatory. There is a sound belief that a people who make their own way are in the end riper and of stronger fiber than those who accept what is not the result of common determination. But this spirit of intense individualism does not make us independent of, or indifferent to, useful methods and helpful standards. And it is these that we can reveal. It is these that we should find and place in service, rather than force the disconnected schools of the land to feel their way out or "muddle through." We may not command, but we may "show how." This is democracy's substitute for absolutism in the effort to secure efficiency. For such policy of helpfulness there is abundant precedent, not only in the action of Congress in making minor appropriations for the work of the Bureau of Education on precisely these lines, but in the activities of other departments. The country is dotted with experimental farms which prove soil values, and the farmer of today is learning from the government how great and all-embracing must be the knowledge necessary to the carrying on of his work, for he must know of chemistry, mechanics, markets, and finance, transportation, and a world of things which his father or grandfather would have laughed at as the frills of a doctrinaire education, notwithstanding the early example of the wise and manysided farmer who was the third President of this country.

I have said in a previous report that the Bureau of Education should either be abolished or put to serious high purpose. I believe the latter to be the wise, in fact the necessary, course. There is a real use for it. As in the Bureau of Mines we seek to save the lives of miners by educating them in the use of explosives and life-saving apparatus, and by instructing operators in safe methods of building their vast underground workshops, so I would erect the Bureau of Education into a Bureau of Educational Methods and Standards in which would be gathered the ripe fruit of all educational experiments upon which the schools of the country could draw. This is a wide country, and there is need for a national clearing-house where can be centered and exchanged the results of the most remote experiments.

The Commissioner has perhaps underestimated the contributions of America and overestimated the contributions of Italy and Japan to educational sciences. He certainly has laid his hand upon the fundamental doctrine of democracy, which is the main reason why this nation has lagged somewhat behind more highly centralized governments. "A people who make their own way are in the end riper and of stronger fiber than those who accept what is not the result of common determina-

tion." Moreover, the evolution of a suitable school system in a young country is much more difficult than in an older society. It may be pointed out, also, that America must evolve a system not for a highly stratified society, as in Germany, where a child is born to an education thought to be suitable for his birth. America is moving slowly, in order to provide for efficient industrial education, to be sure, but even more important, to enable every youth, however humble his birth, to rise through education to the full height of his possibilities. The United States wants no school system which condemns the son of an artisan to become nothing better than an artisan.

With the principal suggestion of Commissioner Lane, every educator must be in hearty accord. By all means expand the Bureau of Educational into a Bureau of Educational Methods and Standards; increase the powers of the Commissioner of Education and his department, that they may enlarge the admirable work they are already performing, and become a thoroughly equipped "national clearing-house where can be centered and exchanged" the ripe fruit of all educational experiments.

THE ABOLITION OF HOME STUDY

The purpose of the California law prohibiting home study for elementary-school pupils under fifteen years of age is explained by Charles C. Hughes, city superintendent of Sacramento, in his annual report:

It was necessary to meet another condition which your superintendent believes to be a basic principle in school work, and which is the central idea of the course of study in use in our city. Pubils must be trained to study. It is believed that to know how to study is more important than to know how to recite, and that this important part of the child's training should be accomplished under the direct supervision of the teacher in the schoolroom, and not left to the busy home. It is the business of the school, not of the home, and the school has no right to shift the responsibility. It is rare, indeed, to find a home with proper facilities for study. The child needs opportunity and place for concentration, the light must be right, there must be proper ventilation, there must be quiet if the lesson is to be well learned. From a physiological standpoint, assuming that the child will do his studying after the evening meal, he can hardly begin his work with any chance of success until at least an hour after he has eaten. This would bring his work until half-past seven or eight o'clock, and in most of our homes even later. The child should have time to digest his food, and a normal child should grow sleepy very early in the evening. He should be in bed by half-past nine or ten o'clock. Thus it is seen how little time really exists for the preparation of the lessons for the next day, and the weakness proven of assuming that all children will come to school prepared for their work. It can be easily figured how great is the loss in the effort of the teacher to listen to recitations in lessons which have not been prepared. The brighter pupil will bluff his way through, the duller pupil will gain little from the time spent. Therefore in preparing a lesson schedule it is necessary to find time for study-periods for each subject needing preparation. In doing so, the traditional amount of time devoted to each subject per week has been reduced by the addition of study-periods and subjects for general training. but the reduction is more than made up by intensive preparation and study under the eye and direction of the teacher rather than in the careless, haphazard way usually followed. The result is that the teachers have a time schedule and a lesson schedule on which their weekly programs are based, and in accordance with which the course of study is prepared. These schedules do not hamper the teacher in originality or individuality. She may place her subjects wherever she pleases. They have nothing to do with the method. A teacher's method may be the best for her, and so long as it is a successful method, it is not interfered with. The object of the program is to regulate the relative value of subjects and to hold the study work in the schoolroom, under the supervision of the teacher, where it belongs.

Admission by Certificate in Dartmouth

State universities have long been experimenting with the essential features of the plan of certification which Dartmouth has recently announced. It is doubtful, however, if any inspection and estimate of high schools have been so carefully planned as to be of worth for all parties concerned. Especially commendable is the opportunity any school may have of a sympathetic and thorough inspection, together with recommendations for improvement. Making the pupil's record in college an essential part of the evaluation of the worth of his preparatory school is likely to throw an increased sense of responsibility upon public-school men.

The granting or reissuing of the certificate privilege will be decided by the Committee after due consideration of: (1) the report of the visitor from the faculty; (2) the record of the graduates of the school who have entered Dartmouth, if any; (3) the standing of the school in the rating of the State Department of Education and other certificating bodies; (4) the information contained in the application blank submitted by the principal of the school. The Committee will endeavor to decide each application upon its merits; particular attention will be paid to: (1) the quality of the instruction, as influenced by training of teachers, pupils per teacher, classes per teacher; (2) the equipment

of the school, including laboratory and library facilities; (3) the course of study, indicated by length of school year, length of actual teaching period, number of recitations per week in each subject, provision for concentration on certain subjects, and opportunity for the study of electives.

The Committee recognizes the necessity of a somewhat different standard of graduation from secondary school and certification to college. It urges that principals signing the certificates of pupils insist that actual evidence be given of the ability of the pupil to gain profit from a college course such as Dartmouth offers. The certification of any other pupils, no matter how worthy, is unfair to the College, the pupil, and the principal and school whose approval they bear. The College sets no definite mark which must be gained before a pupil shall be certified; it views with apprehension, however, the issuance of a certificate to a pupil whose standing was below 85; in uncertain cases entrance examinations may be taken, and the responsibility for the pupil's fitness placed upon the College. Due record will be kept of those principals who do not use the certificate privilege wisely. As in the past, the Committee intends to send to each school, after midyear's, the first semester marks of its graduates who are in the Freshman class.

The visit of the representative of the faculty may be of service to the school in many ways: the Dartmouth grades of the school's graduates may be discussed; the pupils preparing for college, or only those preparing for Dartmouth, may meet the visitor and discuss with him questions of proper preparation for college life; in certain cases a meeting of the teachers may be arranged; nearly all the visitors will be glad to speak informally at the school assembly, if desired; the Executive Secretary of the Committee is prepared to give an informal talk on "College and College Life," using lantern slides of various colleges; an informal conference with the parents of boys preparing for Dartmouth has frequently proved of mutual value.

In addition to any comments made during the visit, the Committee will gladly send to the principal, superintendent, or school board its evaluation of the school, indicating both strong features and those which may, in its opinion, be strengthened. As the purpose of the visit is co-operation rather than criticism, such a report will be sent only when definitely requested.

THE HIGH-SCHOOL COURSE IN ENGLISH

In the first quarter of the nineteenth century, spelling in American schools became a craze. Elaborate school instruction was supplemented by spelling-schools and spelling-matches. Webster's Blue Backed Speller enjoyed a sale unrivaled in our school annals. Fifty years after the dominance of spelling, English grammar rose to its height, occupying in 1850-70 from three to seven years of the elementary-school program and in addition a prominent place in the high school. After 1870, with

the tendency of grammar to subside to its correct place as an incidental study, composition gained in strength and together with literature, carefully prescribed by college-entrance requirements, is today monopolizing one-fourth of the high-school curriculum, while formal language lessons predominate in the elementary schools. Thus it has been the fate of new branches in vernacular instruction, after they have once been introduced into the curriculum, to be carried to excess.

The history of spelling and of grammar suggests that a few decades later educators will be saying that the school of 1900-1920 had not discovered that language habits are most advantageously acquired in classes other than formal composition; and that literature is a present reality, with living poets and prose writers, as well as a dusty contribution from masters who lived centuries ago. Future historians of the curriculum may smile at the excess of oral composition as we carry it today into elaborate state declamatory contests, just as they will ridicule our excess in interscholastic athletics.

In the light of the past one argument for increasing the time and strength given to formal classes in composition and literature is at least questionable. If children cannot spell, give them more classes in spelling; if they are grammatically inaccurate, give them more instruction in grammar; if they cannot write, give them more classes in composition; if they cannot enjoy the pale heroes of King Arthur's court, give them Milton's Minor Poems and Carlyle's Essay on Burns. It was apparently the sound logic of this argument that led to wild excess in spelling about 1825 and in grammar about 1875. The same logic is operating powerfully today in advancing composition and literature to their present status.

There can be little doubt that 1900–1916 is the heyday of formal composition and of the classics in the English curriculum, just as 1825 was the heyday of spelling, and 1860 the heyday of grammar. And still the cry is that, because English departments are failures, because the product is exceedingly imperfect, we must have more English branches and larger appropriations.

English teachers do not care to raise the question whether the product of the schools in science, in mathematics, in the modern languages is of a relatively higher standard than in English. English is, indeed, more fortunate than its sister-studies in being able to have the value of its product weighed every day in the practical life of its graduates. If the ability of pupils to apply mathematics, science, and modern languages were viewed with the same critical eye as the product of the

English department, the inferiority of English teaching might not be so apparent. But English welcomes this criticism of its efficiency. English is experimenting with conversation lessons, with present-day literature; English is begging other departments to co-operate in establishing correct language habits; English is endeavoring to put oral composition on a sensible basis. Here and there a daring reformer is advocating less time for formal English classes, their place to be taken by more general and uniform guidance in language habits. Here and there school officers are rejecting teachers of other departments whose English is slovenly, just as they reject candidates whose appearance is slatternly. History in the teaching of the mother-tongue is being made today. The essence of the new movement in vernacular instruction is well expressed by Sir Oliver Lodge who says that "language must be learned in a pupil's stride—not by years of painful application."

The School Review submits that our present curriculum in the vernacular, particularly in the secondary schools, is not teaching English "in the stride of the pupils." It is attempting to pound English in by years of painful application.

BOOK REVIEWS

Children's Perceptions. By W. H. WINCH. Baltimore: Warwick & York, 1915. Pp. x+245.

This is No. 12 of the Educational Psychology Monographs, edited by Professor Whipple. It gives the detailed results of Professor Winch's experiments with children from three to thirteen years of age in reporting what was observed in a picture. This type of experiment is familiar to American teachers, and it need not be described in greater detail than to say that the purpose of the experiment was to determine the perceptions of children of different ages and their tendency to resist suggestion. Professor Stern, of Germany, first attracted attention to this method of investigation, and Professor Winch's experiment is in reality a repetition of experiments previously made by Professor Stern.

In common with most books, psychological and otherwise, Professor Winch discusses at the outset a question which should be considered at the conclusion of his work. He asks in the beginning, "How, if at all, can children be taught to observe?" Now this is the practical problem which his investigation is designed to help solve. If it had been discussed at the close of his book, rather than at the opening, it would undoubtedly have been more satisfactorily answered. As it is, Professor Winch does not go into the problem far enough; he does not show how children of different ages can be taught to observe. He gives only seven pages to a discussion of this very complicated problem. It would have been better, perhaps, if he had saved some space in the presentation of the results of his investigation, and had devoted this space for a consideration of the practical outcome for teaching.

Professor Winch does not make it clear that children can be taught to observe. He shows what objects and situations in the picture which he used ("The Breakfast Picture") are noticed by infants and by children up to the age of thirteen. He has tabulated his results so as to indicate sex as well as age differences in observation. His data tend to confirm beliefs which for some time have been generally held by American students of psychology and child development; and they simply indicate the observational traits of different ages. They do not show that these traits can be modified by teaching. There is no evidence that a general power of observation can be developed by any particular method of instruction. Professor Winch did not set out to investigate this problem, apparently, and nothing has been derived from his investigation which should enable him to answer the question which he asks at the outset of his book.

As to the technique of the experiment: the picture was first shown to the children for one minute, after which they made a free and unprompted report. After they had made the report a number of questions were asked, to which answers were given. Then one week later the children were asked to give another free and unprompted report of what they saw in the picture. After this they were asked the same questions which were put to them after their first report. Then they were permitted to look at the picture again, and directed to correct any errors which they had made in either their reports or their answers to questions.

In general the results show there is more detailed and accurate observation as a result of interrogation followed by observation of the picture. That is to say, the questions asked directed the attention of the children to objects and situations which had not received explicit attention in their first examination. This is, of course, exactly what might be expected; but it does not mean that if children should observe another picture differing from the one used in the experiment, and particularly if they should observe natural instead of pictorial objects and situations, they would show any improvement as a result of their experience with "The Breakfast Picture."

American teachers have for a long time been discussing the question of teaching children to observe. The present experiment indicates what they tend to observe at different ages in a particular sort of situation. It does not, of course, indicate what they tend to observe in nature. But it will be of interest and of practical value for any teacher or parent who has charge of children between the ages of three and thirteen to read Professor Winch's book. The teacher or parent who has not reflected upon the limitations of children in their observations, and the particular directions which the observations take, will be surprised at Professor Winch's data. If such a parent or teacher will make the experiment upon himself before he reads the book and if he will look at the picture after he has read the book, he will be astonished at the limitations and peculiarities of his own observational activities. An experience of this sort should teach anyone that in dealing with people of any age, but especially with children, care must be taken to direct their attention specifically to objects or situations which should be observed. Disaster is certain to follow the kind of instruction which asks children to look at things in a general way in the expectation that they will perceive everything vital in the situations before them. There is nothing new in this principle, but Professor Winch's data emphasize its importance.

The present writer thinks there is opportunity for richer psychological interpretation of the data derived from this experiment than Professor Winch has made. It appears also that it would have been of service if the attitudes of the children under the experiment had been recorded, and had been given in connection with their reports and answers. The writer believes that any account of an experiment upon children of any age which gives only their answers and does not describe their physical and emotional reactions is

inadequate and unsatisfactory. To illustrate: it is shown in these experiments that older children are, speaking generally, deficient in observational ability as compared with infants. Professor Winch's effort to explain this is not entirely satisfactory. If he had told us how these older children looked and acted when they were going through the tests, we might see whether they made a serious attempt to make a good record in their reports and answers, or whether they treated the experiment in a superficial way. Did the younger children desire to make a high score, while the older ones thought it would be childish to make a good record? This is often the case in experiments of this kind, and it vitiates the results unless they are properly weighted and interpreted.

The book will be of particular interest to practical people who have not been students of child psychology. It is full of concrete details which will be suggestive to people who are actually in charge of young children. For psychologists it presents data which will be of service in the development of the psychology of perception in childhood and youth.

M. V. O'SHEA

University of Wisconsin

The Portland Survey. By ELLWOOD P. CUBBERLEY, assisted by FLETCHER B. DRESSLAR, EDWARD C. ELLIOTT, J. H. FRANCIS, FRANK E. SPAULDING, LEWIS M. TERMAN, and WILLIAM R. TANNER. School Efficiency Series. New York: World Book Co., 1915. Pp. xv+441. \$1.50.

The first seven chapters of this book are written by the director of the survey, and deal with the legal organization and system of administration and supervision; the selection, tenure, and salary of teachers; the social and economic position of Portland; and the educational needs of such a city.

Nearly all of the material here presented points to the fact that the phenomenal growth of Portland in recent years has not been taken into account by the city or by the state in the provisions for education. Portland has become a city without realizing it. She still has the legal organization for school purposes of a small town or village. The educational needs of a city of the size of Portland put it in a different class from the remaining school districts of Oregon over which the same state laws operate, and there is demanded in her case a much greater degree of independence in the matter of the organization and control of the city school system.

The gist of the trouble found with the administration and supervision of the Portland schools may be summed up in the terms, uniformity and overcentralization. The board endeavors to exercise authority in matters of detail which should be left entirely to the superintendent or the principals, and leaves little room for the development or the expression of the qualities of leadership which should be most emphasized in these officers. The superintendent, who should be the real head of the educational system, is made little more than a clerk to the board. He should, Cubberley thinks, have the sole

right of recommendation to the board, if not the power of election jointly with the assistant superintendents and some of the principals. In this connection he condemns the new permanent tenure law for teachers in Oregon which will, he thinks, make them practically independent of the superintendent. This recommendation regarding the superintendent is in accord with more recent school surveys and writings on educational administration.

The practice found in Portland, in its stress on uniformity, discourages initiative on the part of superintendent, supervisors, principals, and teachers. The remedy, as Cubberley sees it, is to be found in pushing the authority and the responsibility down to the lower units of administration. The superintendent must be the responsible head of the system, in so far as the board is concerned, but he will secure the desired educational results by giving to his principals considerable authority in their particular schools, and these in turn must encourage rather than restrict variety and initiative on the part of the teachers. The absence of commercial and agricultural schools in Portland, a city so vitally interested in these lines of work, is pointed out as a glaring effect, or defect, of the present diligent pursuit of uniformity.

In his discussion of the present system of elementary and secondary instruction and his suggestions for a reorganization, Spaulding stresses the same points which Cubberley has brought out, and bases his criticisms of the present system on the work which he found going on in his visits to the schools. The excessive amount of uniformity, the dictation from above, even to the minute details of method of instruction and the amount of material to be covered, are condemned in no uncertain terms as deadening in effect upon both principal and teachers. The primary work is found to be far superior to both the work of the grades and that of the high schools, and the secret of this fact Spaulding believes to be the general absence here of examinations, which in the upper grades have become the controlling factor in instruction.

Spaulding's plan of reorganization would provide for four groups instead of the present two: kindergarten, elementary, intermediate, and high schools, with distinct aims and curricula for each. The system of classification which groups 385 twelve- to eighteen-year-old pupils with 291 pupils of seven to eight years of age, as the Portland system has done, is justly condemned. Mastery of material is a legitimate basis for classification, but by no means the only one. Any system of classification should take into account what a pupil needs as well as what he knows.

The recommendations of Superintendent Francis in his special consideration of the needs of Portland in the field of vocational work are strikingly like those appearing earlier in the report. He would have less formality and uniformity in the vocational work of the school and a closer connection between this work and the life interests of the pupil outside the school. While the child is making something, allow him to make something useful, something in which he is personally interested. The plan of reorganization outlined by Francis is the same as that advanced by Spaulding.

The building and sites problem; the building and equipment of the school plant; the system of health supervision; and the census, attendance, records, costs are discussed by Cubberley, Dresslar, Terman, and Elliott, respectively, and a number of suggestions are made. There is a great need for more school physicians and nurses, and more attention to the smaller but more common defects of school children. School reports should be more of a popularizing instrument of the school system. People are interested not only in each item of expenditure of their money used in the schools, but in the educational result secured.

The Portland Survey is published as "a textbook on school administration. based on a concrete study": and one feels, the more one studies it, that it is a study of this impersonal type. While the investigation seems to have been a thorough one, considering the very limited time at the disposal of the surveyors, it is plain that the Portland system simply serves as an illustration for this enunciation of principles. While there is much adverse criticism of the Portland schools, and this side of the report is necessarily exaggerated in a short review, there are many points about the Portland schools to be commended. The social and economic condition, i.e., the large percentage of native-born population, the large proportion of men and small proportion of children, and the large per capita wealth, justify one in expecting an exceptionally good system of schools, and such a system the members of the survey staff are avowedly planning for Portland. It is granted to the present school officials that they are operating the school system in accordance with the aims that have been set up for them, with a considerable degree of success; but the aims are too narrow.

One of the most interesting features of the report is the recommendation for the establishment of intermediate or junior high schools. This is a means of conceding more to the pupil as an individual. Both Spaulding and Francis look upon such a scheme of reorganization as necessary, and with this, as with all of the other important recommendations included, the other members of the survey agree.

IOSEPH HENRY IOHNSTON

UNIVERSITY OF ILLINOIS

Moral Education. By WILLIAM T. WHITNEY. Boston: Leroy Phillips, 1915. Pp. vi+108.

This book is a study of the home and school life of six hundred boys and six hundred girls from the fourth to the eighth grade of the elementary school over a period of five years. The object of the study was to determine the relation between religious training and deportment, and home training and deportment, and the effect of deportment upon scholarship. There was found to be a close correlation in each of these relations. As a supplement to this study, though not dealing with the same children, the author gives the results of a study of 500 elementary-school boys and 200 high-school boys

from the point of view of their occupational success after leaving school, showing unmistakably the value of the high-school training. While the results of these studies were doubtless to be expected, the investigation was thoroughly worth while and suggests a method which might well supplant the loose and unscientific methods which have usually been employed in discussion of the moral problems in school administration.

FRANKLIN W. JOHNSON

University of Chicago

The Study of Literature. By PAUL H. PEARSON. Chicago: A. C. McClurg & Co., 1015. \$1.25.

Professor Pearson's book is the outgrowth of his extended instruction of teachers of English in the University of Kansas and other institutions. He seems to have struck exactly a sane balance between a critical study and an

appreciative study of masterpieces.

This contribution will be welcomed by teachers of English who find themselves confronted by a serious dilemma. If they allow their classes to "read literature as it should be read, for enjoyment" they face the danger of slipshod reading, producing for the pupils only a superficial knowledge of the story. On the other hand, if they compel classes to spend months on an English classic in minute analytical study of every detail, they most certainly kill the spontaneous interest in stories which characterizes children's earlier life. Highschool pupils define a classic as "a book written in a dead language."

Professor Pearson sees that the sane approach for a class in English literature must be a compromise between these two extremes. With many concrete illustrations he explains how the analytical study may be made a constant help in giving high-school classes an illumined interpretation of the author's message. In short, if literature is to be studied at all, it is to be used as a means of establishing in the pupil's mind, not primarily a detailed knowledge of a few classics, but detailed knowledge of what constitutes any classic—what elements go to make up a great essay or drama or novel.

This admirable book will find its way into many a classroom in which instructors of methods are endeavoring to train teachers of the mother tongue. It will be of interest also to the general reader who desires a deeper insight into the charm and meaning of English literature.

R. L. LYMAN

UNIVERSITY OF CHICAGO

Honesty. By WILLIAM HEALY. Indianapolis: Bobbs-Merrill Co., 1915. Pp. 220. \$1.00.

The author has been director of the Juvenile Psychopathic Institute of Chicago for a number of years. As advisor of the Juvenile Court he has come in contact with a very large number of youthful delinquents and the experience thus gained furnished the background for his treatment of the specific type of delinquency discussed in this book. The book is intended for parents, teachers, and social workers who are in direct contact with the problem of training young children. While thoroughly scientific in method, the author has throughout confined himself to simple and non-technical terms. He places great emphasis upon the importance of careful analysis of the specific causes of dishonesty as preliminary to effective remedial treatment. Among underlying causes the following are made the subjects of chapters: home conditions and parental behavior, companionship, amusement and adventure, habits—mental, physical, and social; physical conditions, abnormal mentality, impulsions and obsessions. Numerous detailed accounts of specific cases give valuable suggestions both for diagnosis and treatment. This is one of the most useful of the recent books dealing with the moral aspects of education.

FRANKLIN W. JOHNSON

UNIVERSITY OF CHICAGO

A Comparative Study of the Township District, Consolidated, Town, and City Schools of Indiana. By LESTER BURTON ROGERS, Ph.D. Menasha. Wis.: George Banta Publishing Co., 1015. Pp. vi+210.

The purpose of this study, as set forth by the author in his introductory chapter is to present such correlated data of the four types of schools, the one-room township district school, the township consolidated school, the village or town school, and the city school of Indiana, as will reveal the exact condition of these four types of schools with reference to school plants, teachers, school population, attendance, curricula, supervision, revenue and expenditures, and to determine:

- (1) To what extent do the facts substantiate the claims made by the advocates for consolidation.
- (2) Which of the advantages gained by consolidation are limited to this type of organization.
- (3) To what extent is the present plan of organization and administration of consolidated schools applicable to the rural situation.
- (4) The essentials in the reorganization and administration of all rural and town schools to insure equality of opportunity for all children of school age.

In such a study as Dr. Rogers has made, the selection of representative units for investigation and the method of gathering and compiling data have an important bearing on the value to be placed upon the data and the conclusions reached. Great care was exercised by the author in getting typical corporations for study. The data were gathered by personal interviews and from official records, while the compilations were made by the author and one assistant. The data submitted appear to be entirely reliable.

The book is divided into nine chapters as follows: "Introduction," "School Plants," "Teachers," "Enrichment of Curricula," "Supervision," "School Statistics," "School Finances—Receipts," "School Finances—Expen-

ditures," and "Summary and Conclusion." Chaps. ii-viii present in Tables I-XCVI rather exhaustive data on their respective topics. The discussion and interpretation of these materials will be helpful to teachers and school officials.

The conclusions reached concerning consolidated schools will command attention since they rest upon well-established facts, rather than upon general assertions. The book should prove suggestive and helpful to those engaged in administering public education. Notwithstanding the absence of a bibliography and an index (which is regrettable) it will also supply in compact and accessible form valuable data for such courses in school supervision and administration as are usually given in normal schools, colleges, and universities.

W. H. SANDERS

LA CROSSE NORMAL SCHOOL

A History of American Literature since 1870. By FRED LEWIS PATTEE. New York: Century, 1915. 8vo, pp. 449. \$2.00.

It is a very pleasant, if difficult, task to which Professor Pattee set himself in this volume; and the work is pleasantly done, and done with enthusiasm. The author is working in new soil; for he is the first to attempt to block out this the most recent period of our literature. The volume contains a wealth of facts which seem to be accurately stated. It is this assemblage of number-less facts, biographical and bibliographical, between two covers that will make the book of great usefulness. The critical side of the work is less commendable.

What Professor Pattee desires to do is to interpret for us the spirit from which the poetry, prose fiction, and miscellaneous prose of the period were articulated. He is interested in national rather than literary ideals. Although his enthusiasm for his field leads him to say that "never before has there been so high an average of literary workmanship" (p. 24), most critics of the period will probably sympathize with his apparent opinion that the writing under consideration is more interesting as a comment on life than it is as art. Hence the special aim of the volume is pleasing. But it is also dangerous; and it is especially so if the critic wishing to interpret writers almost of his own generation approaches his task with enthusiasm.

Of Professor Pattee's glowing fondness for the period there can be no doubt. He says: "The decade from 1868 is in every respect the most vital and significant one in the history of America" (p. 19). The Centennial of 1876 furnished Bayard Taylor "subject and occasion worthy of a Milton" (p. 120). This is giving Grant's administration "a clean bill" with a vengeance. The same uncritical spirit causes a curt dismissal of Edmund Gosse's opinion that the period was deficient in poetry (p. 345), though Professor Pattee fails to make his poets seem very impressive. He writes with most gusto when celebrating the period as one of revolt from books and oldworld culture, as one of enthusiasm for things concerning the common people.

He calls the period the National Period, but just how widespread a sense of nationality he makes evident in our literature of the time will doubtless be a matter of opinion. Some aspects make one wonder if "Regional Period" would not be a juster label. It is difficult to see how Professor Pattee's interpretation of the national tastes can meet with general commendation, except among such as allow patriotism to silence the critical faculties. Doubtless Lowell, Thoreau, Walt Whitman, and Mark Twain may be regarded as the great names of the generation. It is significant that while Lowell's greatest work admittedly belongs in the period, he is shelved along with the earlier New England Period, and his place among Professor Pattee's four "prophets" of the National Period is awarded to Joaquin Miller—a decided change! But in interpreting the poetry of the period, while praising Whitman and Miller, it is necessary to recognize that contrasting with these two there are dozens of "parlor poets": and especially to recognize that these inferior dozens are fully as typical as the barbaric two. It is right to glow over the achievements of the nation during the period, but truth demands also (if we would interpret the spirit of the time) a recognition that the period was one of relative quiescence n the face of gross political and economic abuse. Amidst the praise of the period's vigor, genuineness, and reality, one wishes for a consciousness of the fact that the men lacked intellectual substance: with the exception of Lowell they didn't think enough—they observed and enjoyed. In a word, one objects because Professor Pattee never seems to feel that perhaps the real opportunity in 1876 was for the satiric, not the epic, muse. It is notable that at times Lowell, Bret Harte, and Mark Twain had this feeling.

Professor Pattee's aesthetic principles seem very conservative, though he perhaps imagines them "advanced." He thinks the poet properly a "prophet"; certainly a man with a "message" for his own generation. Keats and "mere sensuous beauty" come in for repeated dispraise: with the exception of some hints from Coleridge, "Keats never got nearer his own century than Milton's day. His women are Greek goddesses: nothing more" (p. 119). Close your Keats; open your Joaquin Miller! Among other surprising dicta is the statement (p. 196) that subjectivity is "an element that is distinctly classical." Of late years this classical-romantic business has got sadly tangled. A perplexing air of progress also hovers about the "henceforth" of the following: "Poetry henceforth must be more than mere beauty for beauty's sake: it must have a message; it must come burning from a man's soul; it must thrill with human life" (p. 152).

After this one may expect Professor Pattee's treatment of the literary critics of his period to be interesting. Mr. Paul Elmer More gets three pages of commendation: he is "an official critic" for the nation apparently. It is strange to think of him as "official critic" for the period of Whitman, Clemens, and Miller. But—waiving his right to a place in this period—since his work is a direct deprecation of the spirit of Professor Pattee's book, why commend

so academic a spirit? One imagines Mr. More might let his poets read the classics. Professor Pattee exclaims: "Why dawdle over Theocritus when the fields are newly green and youth is calling?" Burroughs (who satisfies the formula for the period better, it would seem, than Mr. More) is praised as a "dominating figure" among critics. He "is always simple and direct" (p. 153). Certainly his volume on Whitman may be called "simple and direct" if one cares nothing for meanings of words—not otherwise.

But when it comes to interpretation of the authors for whom Professor Pattee has an understanding taste, his comment becomes just and illuminating. Among the accounts of major personages those of Thoreau, Whitman, and Bret Harte are highly satisfactory. The emphasis on Mark Twain's literary honesty is somewhat overdone: he was certainly a caricaturist. As such he deserves all the praise he gets. One dislikes to see exaltation of Joaquin Miller when so fine a spirit as Lanier is coolly treated; but that is a part of the formula. So also is the exaggerated praise of the "Pike County Ballads"; it is positively indecent to see these slight poems getting credit (p. 86) which belongs to Lowell's robuster "Biglow Papers." This is one of many grievances Lowell might have against the book. After the "Biglow Papers." the "Commemoration Ode," and some valuable Reconstruction essays, besides an early career as an Abolitionist, he would hardly expect to read of himself a statement such as appears on p. 20: "Lowell, so much of whose early heart and soul had been given to Europe, discovered America in this same Centennial year." It happened in Cincinnati, it seems; and it consisted in a few remarks about the West. Our boasted "nationality" frequently falls into flat geography: it unconsciously becomes sectional, but in new ways.

Professor Pattee's style is readable, though not always concise or careful. One is pained by such misspellings as "Acadia" (for "Arcadia," twice on p. 120), "Porphero" (p. 128), and "Chaterhoochee" (p. 288). His is diffuse and excursive not infrequently. Of course a complicated period like the one under consideration does not outline itself easily; but faults of outlining abound. The first chapter is poorly constructed, and a perusal of the chapters dealing with fiction fails to give a very coherent view of just what went on during the period. A most annoying fault is the lapsing into rhetorical expressions that convey a tenuous meaning clumsily. The reviewer, who has never been more than a visitor at Harvard, presents the following as a specimen: "Emerson was the clarion voice of Harvard; Whitman was the voice of the great movement that so soon was to take away the scepter from Harvard and transfer it upon [sicl] the strong new learning of the West" (p. 177).

GEORGE W. SHERBURN

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BOOK-NOTES

- Report of the Commissioner of Education for the Year ended June 30, 1915.

 Vol. 1. Washington: Government Printing Office. Pp. xx+780.
- CALLENDER, GEOFFREY (ed.). Spindrift: Salt from the Ocean of English Prose. Cambridge: University Press, 1915. Pp. xv+417. \$0.90.

"The present anthology," writes the editor, "may help in some measure to show how the masters of English prose have been affected by the sea." This quaint and interesting anthology includes selections from sixty-one authors from Wycliffe and Chaucer to Kingsley, Froude, and Lowell, each dealing in some way with sailors or the sea. Passages from various dramas are also given. A unique book.

Sonnenschein, E. A. A First Latin Grammar for Schools. Oxford: Clarendon Press, 1015. Pp. 125. \$0.40.

This grammar is based on the recommendations of the joint (British) committee on grammatical terminology. It attempts to make Latin understandable by continual reference to derivative French and English idioms. Excellently done.

MIKELS, ROSA M. R. Short Stories for High Schools. New York: Scribner, 1915. Pp. xxi+453.

Twenty-one selections almost entirely from recent writers, with brief introductions by the editor.

- BROOKMAN, THIRMUTHIS A. A Practical Algebra for Beginners. New York: Scribner, 1915. Pp. vii+322.

 Comment later.
- BOLENIUS, EMMA M. Teaching Literature in the Grammar Grades and High School. Boston: Houghton Mifflin Co., 1915. Pp. xv+337. \$1.25. Comment later.
- Andrews, Charlton. Technique of Play Writing. Springfield: Home Correspondence Schools, 1915. Pp. xxx+269. \$1.62.

 Comment later.
- LOCKWOOD, LAURA E. (ed.). Sonnets Selected from English and American Authors. Boston: Houghton Mifflin Co., 1916. Pp. xiv+114. \$0.35.

An unusually attractive little volume, suitable for classroom or for library, containing the best sonnets in our language, from 1500 to 1015. The working basis has been to seek sonnets with a clear theme, a definite something to say; and as far as possible, to choose only those that develop this thought, according to a clearly conceived plan, in musical, imaginative language.

FIELD, JESSIE, and NEARING, SCOTT. Community Civics. New York: Macmillan, 1016. Pd. x+270.

A text in civics for rural schools, dealing especially with the country home and its civic responsibilities.

Ayres, Leonard P., and Ayres, May. School Buildings and Equipment. Cleveland: Survey Committee of the Cleveland Foundation, 1916. Pp. 117.

Valuable evidence on progress in the construction of school buildings during the last sixty years.

- BUREAU OF EDUCATION. Report on the Work of the Bureau of Education for the Natives of Alaska, 1913-1914. Bulletin No. 48, 1915. Washington: Government Printing Office, 1915. Pp. 52+iv. \$0.20.
- Lowe, W. D. The Fall of Troy, Adapted from Vergil's "Aeneid." Oxford: Clarendon Press, 1915. Pp. 96. \$0.40.

Virgil made easy; also somewhat desiccated. Introduction, notes, and vocabulary.

- POTTER, ZENAS L. The Social Survey: A Bibliography. New York: Russell Sage Foundation, 1915. Pp. 12. \$0.05 (paper).
- Brackett, Charles A., The Care of the Teeth. Cambridge: Harvard University Press, 1015. Pp. 63.

A clear and concise statement of the structure of teeth, processes of decay, and the reasons why they need to be taken care of.

- HARRIS, FRANKLIN S., and STEWART, GEORGE. The Principles of Agronomy. New York: Macmillan, 1915. Pp. xvi+451.
 Comment later.
- HEMINGWAY, SAMUEL B., and SEYMOUR, CHARLES (eds.). Selections from Carlyle. Boston: D. C. Heath & Co., 1915. Pp. xxi+260.

Selections from Sartor Resartus, The French Revolution, and Past and Present. A brief introduction and notes—where they ought to be, at the bottom of the page. Excellently put together.

- LOANE, G. G. Caesar's "Gallic War": A Vocabulary. Oxford: Clarendon Press, 1915. Pp. 61. \$0.40.
- ELDRIDGE, ARTHUR A., and BRISCOE, H. V. A. First Aid in the Laboratory and Workshop. London: Longmans, Green & Co., 1915. Pp. 30. \$0.35. Title self-explanatory.
- PERRY, CLARENCE ARTHUR. Educational Extension. Cleveland: Survey Committee of the Cleveland Foundation, 1916. Pp. 115.

 Deals with the problems of under-use of the school plant.

BLACKBURN, SAMUEL A. Problems in Farm Woodwork for Agricultural Schools.

High Schools, Etc. Peoria: Manual Arts Press, 1915. Pp. 129. \$1.00.

A practical handbook of constructive work. Gives plates, directions, and esti-

mates. Discusses ten kinds of problems on the farm.

SONNENSCHEIN, E. A. A Latin Syntax. Oxford: Clarendon Press, 1915, Pp. viii+(123-279). \$0.40.

A reprint of the second part of Sonnenschein's New Latin Grammar. Based on the report of the joint committee on Grammatical Terminology.

SIMONS, SARAH E. (ed.). Bryant's Iliad (Abridged). Boston: Houghton Mifflin Co., 1916. Pp. x+382. \$0.75.

Omits books xi, xiii, xiv, xv, xvi, xvii, and certain other minor passages. The amount of editorial material is very brief, but adequate; in other words, this is a poem, and not a text on Bryant.

KARPINSKI, LOUIS CHARLES. Robert of Chester's Latin Translation of the Algebra of Al-Khowarizmi. University of Michigan Humanistic Series, Vol. XI. New York: Macmillan, 1915. Pp. 164.

This translation makes available a work which is particularly important in the history of Arabic contributions to the development of mathematical science in Europe.

GOLDSMITH, PETER. A Brief Bibliography of Books in English, Spanish, and Portuguese, Relating to the Republics Commonly Called Latin America. New York: Macmillan. Pp. 107.

This book is indispensable to the person who intends doing any reading on Latin America. It carefully and fearlessly evaluates the most popular works on the subject and suggests little-known works of value. Contains 350 titles.

